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COVER DISK AND CD-ROM DUPLICATION BY DISKXPRESS

ABC January-June 1997 27,391

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Editorial



We like our postman. After months of waiting, he turned up the other day looking like Santa Claus, his sacked filled with a 95% finished version of Myst, the first PowerUP cards to hit UK shores and the mythical Championship Manager 2! We thought we'd be polite and invite him in for a cuppa and a slice of cake. A week later we wished we never did as we prised him away from our Amigas, so engrossed was he in his Champ Manager crusade to get Millwall to the FA Cup Finals... But I'm going on a bit now, so I'd better just leave you to enjoy this top issue we have for you once again. Oh, and it's a bit bigger this month too! See ya.

Tony Horgan, Editor

Exclusive preview

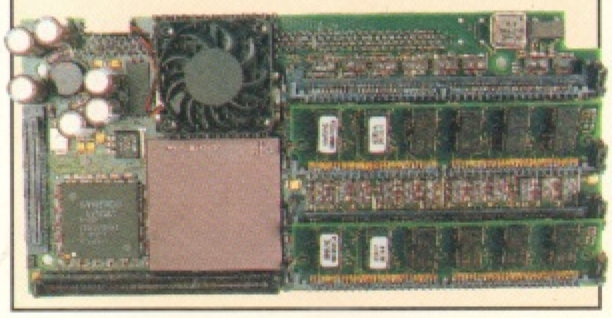


The biggest selling CD-ROM game of all time is about to be released for the Amiga! Myst is an epic adventure game the like of which the Amiga has never seen before. With over 2500 animated 3D scenes, it's a game of monsterous proportions.

Setting a new trend, ClickBOOM saw the potential of an Amiga conversion of the original PC and Mac game from Cyan, and followed through by bagging the Amiga publishing rights, handling the conversion themselves. Assuming Amiga Myst does well, we could see the same pattern being followed by other publishers and developers, keen to give the Amiga the games it deserves. ClickBOOM are already working on similarly adventurous projects to follow up Myst, and if this is anything to go by, then we've got some hot games in store!

Feature

It's arrived! The Amiga is now officially back on the cutting edge. Emerging from the shadows of the Pentium PC, the Amiga can now count on the awesome thrust of the PowerPC series of CPUs – the blisteringly fast processors that chew up the most complex functions and spit them out with venom. The A4000 is first to get the PowerPC treatment with phase 5's PowerUP CyberStorm PPC card, and this is it! As the first bits of Amiga PowerPC software turn up, we take a look at how it performs and ask what this will mean for the future of the Amiga. With A1200 PowerUP cards just around the corner, things are LookingUP.

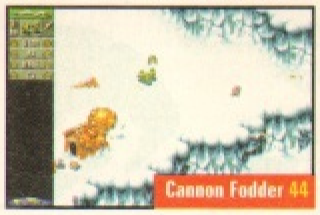


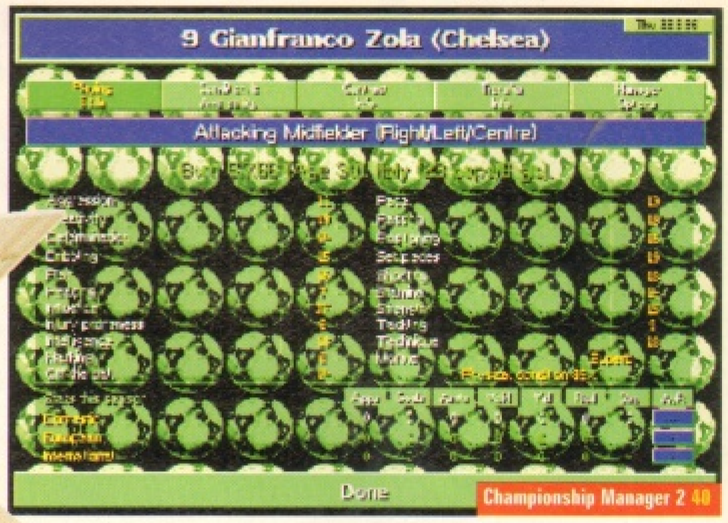
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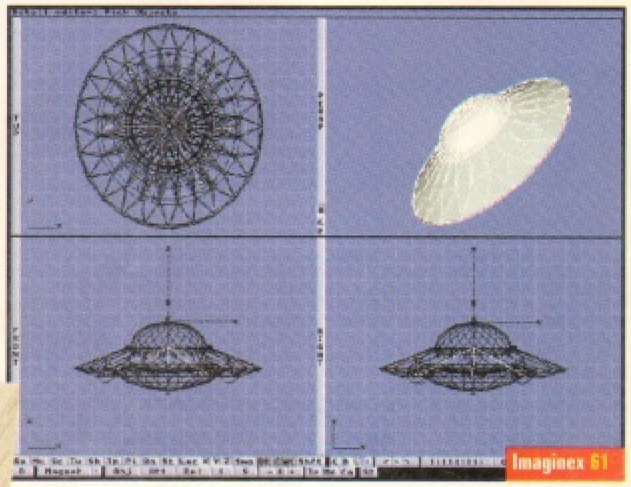
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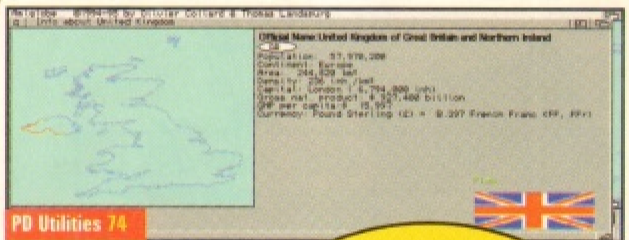

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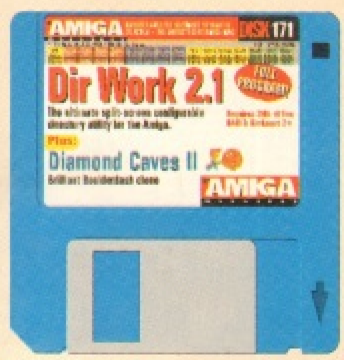



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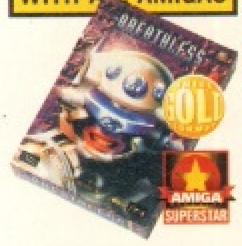
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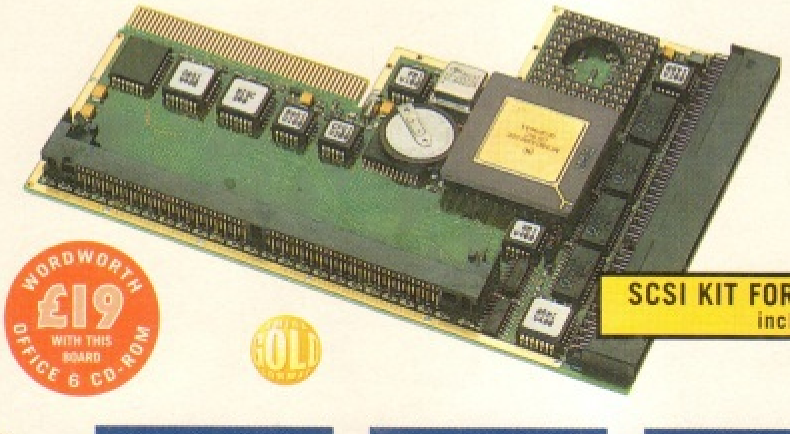
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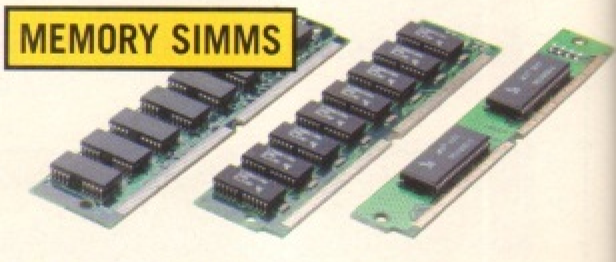
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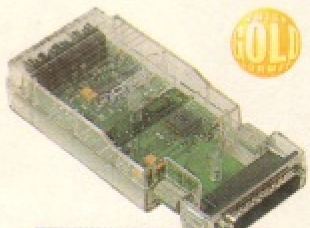
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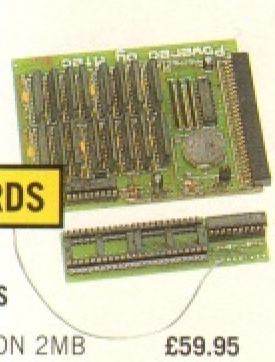
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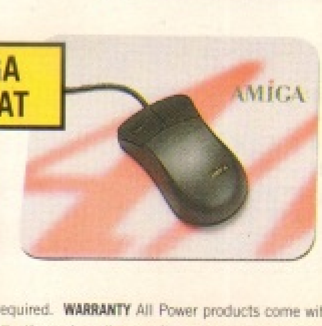
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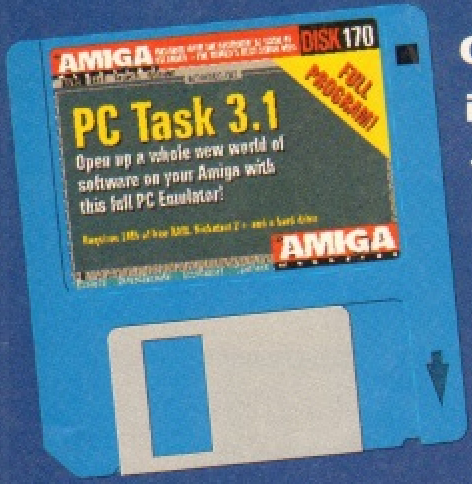
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Installing PC Task

Floppy disk users

Insert the first disk in a drive and double-click on "Install PCTask3.1". You will be asked where you want it installed. A directory called PC-Task3.1 will be created there.

CD users

You will need to install PC-Task manually, since the install script was written for installation from floppy disks. First copy the contents of PC-Task3.1/devs to your DEVS: directory, this is all that's needed if you want to run PC Task from the CD, otherwise create a PC-Task directory and copy over the files in PC-Task3.1 and the MSDOSUtils directory.

All users

There are four versions of PC-Task, two for 68000 machines and two for 68020+ machines. The Turbo version uses a lot more memory, but runs faster, use it if you have the memory available. You can remove any other copies from your hard drive to save space.

Before you can use PC-Task, you need a copy of MSDOS, we couldn't supply this on the cover disks because of Microsoft's licensing.

Installing DirWork

Floppy users

Double-click on the "Extract DirWork2.1" icon and select a temporary directory to extract to. It needs around 700KB so you could extract it to RAM: if you have at least 1Mb free. Then open the DirWork2.1 drawer and double-click on the "Install-DirWork" icon. Once again, the installer will create a directory for you.

CD users

Go into the DirWork2.1 directory and double-click on the "Install-DirWork" icon. Once again, the installer will create a directory for you.

Install PC Task as detailed in the box-out, start the appropriate version from its icon and you will see the configuration screen (figure 1). For now the bottom left section is most important. You need to tell PC Task where it's hard and floppy drives are found. A: and B: are floppy drives, use DF0: for A:. C: and D: are hard drives. PC Task uses hardfiles to simulate the PC's hard drives.

There is a 2Mb hardfile on the second cover disk, CD users get a 10MB hardfile. You will need to create a second hardfile on which to install MSDOS, so click on "Create HardDiskFile" and enter hardfile1 for the name and a reasonable size (in megabytes). Once the file has been created you can set up C and D as hardfile1 and hardfile0 respectively and save the configuration.

Put your MSDOS floppy in DF0: and press Start. PC Task should boot from your MSDOS floppy and look like figure 3. The first thing to do is partition and format the new hardfile. Type FDISK at the prompt and select option 1 from this menu and the next. Select Y at the third menu and follow the instructions.

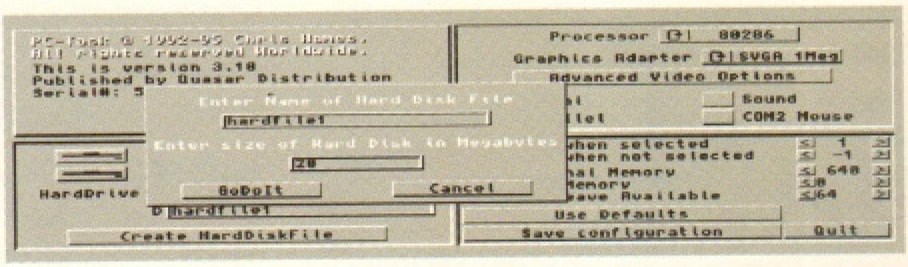
Once you have rebooted the PC, you can format the new 'hard drive' with "FORMAT C:/S". The /S tells MSDOS to include some essential system files on the drive. Finally copy the contents of the floppy to your hard drive with "COPY A:*.* C:" Now eject the disk in A: and reboot the PC with Ctrl-Alt-Del.

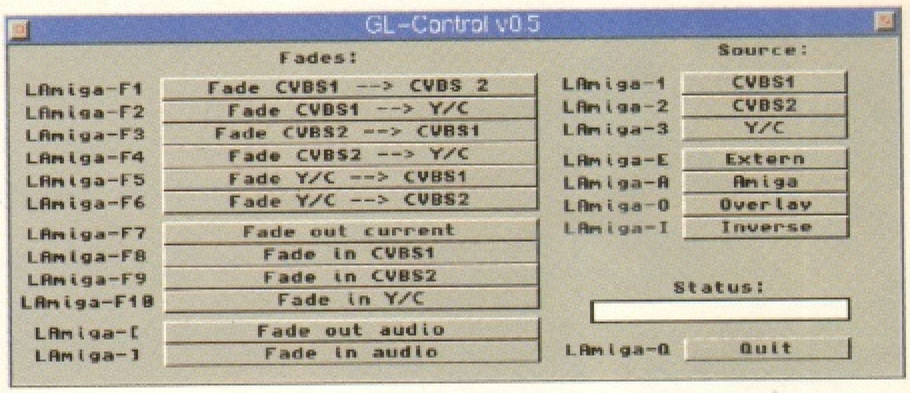
You should now have a fully working MSDOS setup on disk C: You can copy files from the supplied hardfile to C: using the MSDOS copy command, but there is an easier way. Provided you copied hardfile.device to DEVS: you can access the PC hard disks from the Amiga.

Since using both the Amiga and PC to write to the same disk at the same time could be disastrous, quit PC-Task first and then run PCTCrossMount. This mounts C: and D: as TCC: and TDC: on the Amiga, provided you have CrossDOS installed. CrossDOS is supplied with all versions of Workbench from 2.1 onwards. For some reason you need to assign HF: to the directory containing the hardfiles after you run PCTCrossMount.

The 10Mb hardfile on the CD contains a large amount of PC shareware. You can also copy files from PC CDs in an Amiga mounted CDROM drive. You can copy files to and from the hardfiles using Workbench or the shell, but by far the easiest way is with a file manager, such as DirWork.

Have fun!





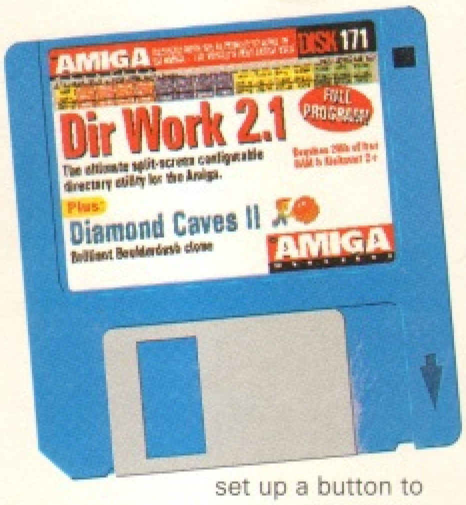
Dir Works 2.1

DirWork is the second program from Quasar on this month's cover disks. It is a directory manager using the traditional two lister format, as pioneered by programs like DirUtil and SID and developed further with Directory Opus 4.

I used DirWork for years, first as a shareware product and then the commercial version. I found it superior to any other two-lister file manager (and I tried them all). Several CUCDs were compiled using DirWork and even though I use Directory Opus 5 in Workbench Replacement mode now, there are still features I miss from DirWork.

Install DirWork as described in the box-out, start it from it's icon and you should see the default configuration as shown in figure 4. This is a very basic 2 lister setup, but DirWork is capable of much more. The installer will have saved several sample configurations (in the configurations directory). Load some of these from the main menu to get an idea of what can be done.

Creating or modifying configurations is done from within DirWork, select Configuration Editor from the menu to get the selection window and select "Change Buttons/FileLists/Scrollers". You should now see something like figure 5. Everything on this screen is an object that can be selected and edited, you can change the size, position, font, colour and actions of each object. DirWork has a range of internal actions to handle iff pictures, mods, samples etc, but let's

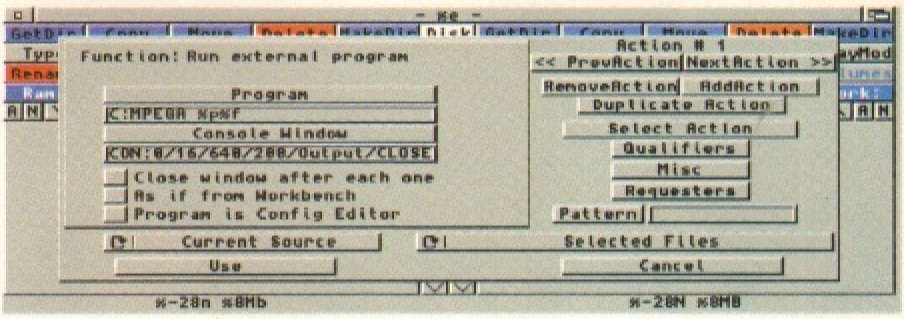


set up a button to use an external command. MPEGA is on all the CUCDs and is an excellent player for MPEG audio files.

Click on one of the buttons and change the Text gadget to read MPEGA, click on Change Action(s) and then Select Actions, pick "Run external program" from the list and you will see something like figure 6. Type "C:MPEGA %p%f" in the program gadget (this assumes MPEGA is in C: of course).

The %p%f refers to the path and filename of the selected file. Click on Console Window and select one of the options, you don't need a window to open for MPEGA but it means you can see what's going on. It's a good idea to always add a window when setting up new buttons, so you can see any error messages. You can remove it when you have the button working exactly as you want.

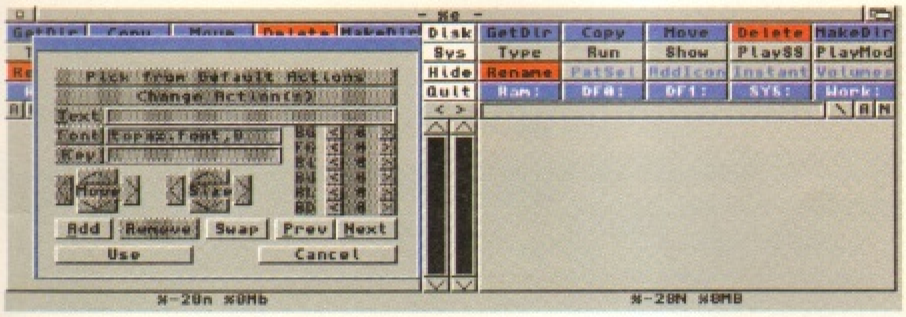
Make sure you use a window with the CLOSE option, otherwise it will stay on the screen after the button action has ended. The two gadgets near the bottom need to read

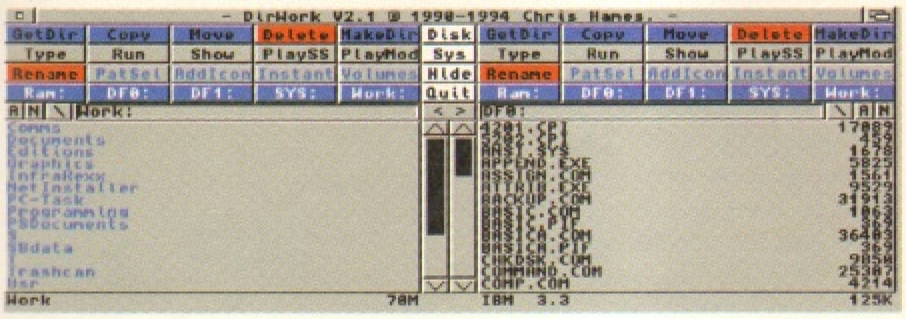


"Current source" and "Selected files". Click on Use in this window and the next, followed by Save & Quit. This should return you to DirWork with your new button.

Now if you select an mpeg audio file and click on the button you will hear the file. If you don't have mpeg, try setting a button to show a picture with ViewTek, Visage or even Multiview. It doesn't stop there, we can now configure DirWork to recognise an mpeg file and automatically play it when you double-click its name. Go back into the configuration editor and select "Change Specific file/dir type InstantActions" and click on Add. You will get a window like figure 7. Type MPEG Audio in the Description field and "#?.mp(2|3)" in Enter Pattern. This means that any file ending in .mp2 or .mp3 will be recognised as mpeg audio. Select Change actions and set it up exactly as you did for the button. Click on Use the Save & Quit and double-click on an mpeg file.

This only scratches the surface of what you can do with DirWork. Have a look at the example configurations and the various options and keep experimenting.



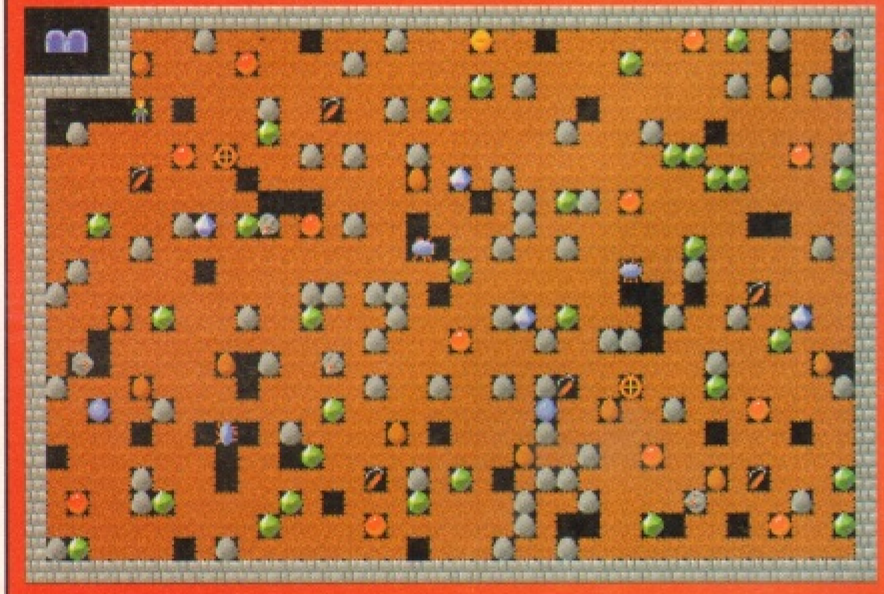


Diamond Caves II

Somehow we've squeezed this great little game onto the cover disks along with everything else! Diamond Caves II is based on the classic Boulderdash game that was popular on the C64. Diamond Caves II takes things a bit further by offering a level editor to enable you to make devious mazes for yourself and your mates to negotiate, or even just to make incredibly easy ones for people who are crap at computer games!

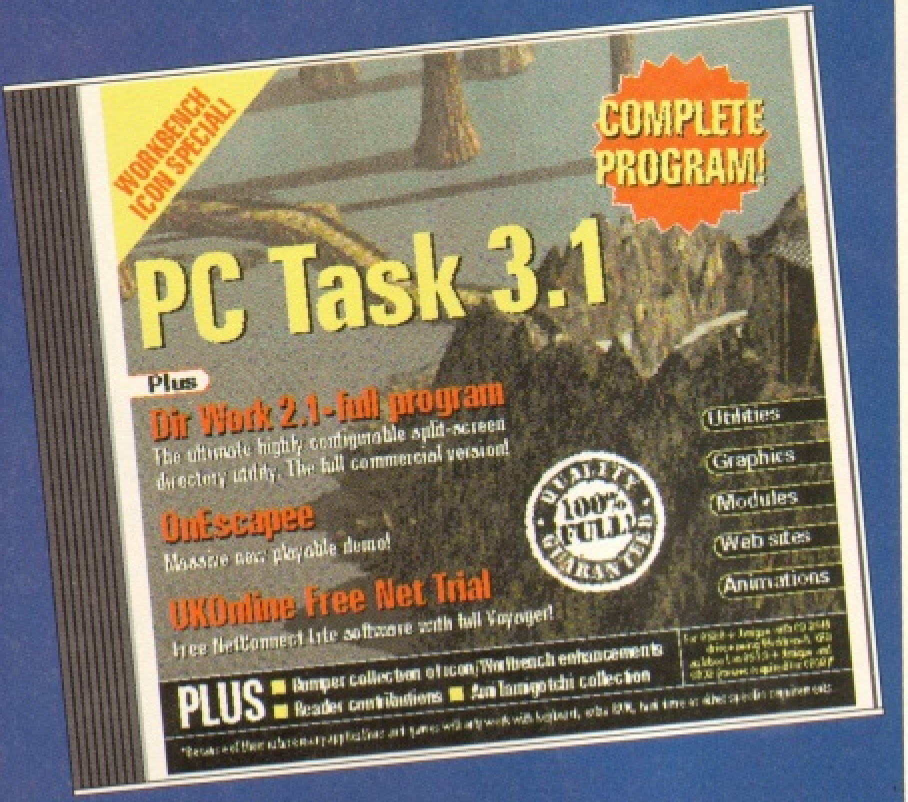
The object of the game is simple. Collect all of the diamonds then leave through the exit which will start to flash. Some objects in the game (such as rocks) are affected by gravity, so if you undermine the soil beneath them, they'll fall into the gap beneath. If you happen to be under a falling rock you'll be squashed. Other bits and pieces, including yourself, will not be affected by gravity. It seems to make sense once you start playing anyway. You'll find other features too, such as conveyor belts, quicksand, doors requiring keys and landmines.

Before you can play your first level you'll need to select a player name, and then select a set of levels. Once that's done you're ready to go diamond hunting. Optional extras also allow you to direct the game to run on any available screenmode (including Cybergraphx) and you can have one or two players.



CD-ROM

Super CD-ROM 17



Not one but two great commercial packages, a huge icon/workbench theme and the usual superb packed-to-the-brim CUCD. Lots of wholesome goodness!

Welcome to CUCD17. If you haven't invested in a CD drive yet, read this to see exactly what it is that you're missing.

CUCD17 can be booted from a CD32 or an A1200/4000 with CD32 emulation. In order to use this CD from your own Workbench, you only need to click on the InitCD icon, which will then allow software to run from the CD. It initiates MUI, IDer and the NewIcons systems – don't be surprised if the look of your Workbench suddenly decides to change. The whole thing is only temporary, and it can be removed by simply clicking on InitCD again.

To help you in finding your way around, there is a DOCS.GUIDE, which will connect you to nearly all text documents, and INDEX which is a CD search tool. Just like everything else on the CD, you need to click on them to activate them.

650 Mb of What?

It's easy to miss the where the real contents of a CUCD lies so here's a list of how much data lies in each directory.

CUCD17 is a well balanced CD, packed to the brim with 650MB of data. This month's theme is the definitive icon and Workbench collection with thousands of files 130MB of data!

- PCTask/DirWorks 10MB
- CoolWB 130MB
- CDsupport 75MB
- OnEscapee 60MB
- CDROM 22MB
- Demos 32MB
- Games 30MB
- Graphics 30MB
- Magazine 55MB
- Online 52MB
- Programming 25MB
- Readers 25MB
- Sound 38MB
- Utilities 25MB
- WWW 40MB

Highlights

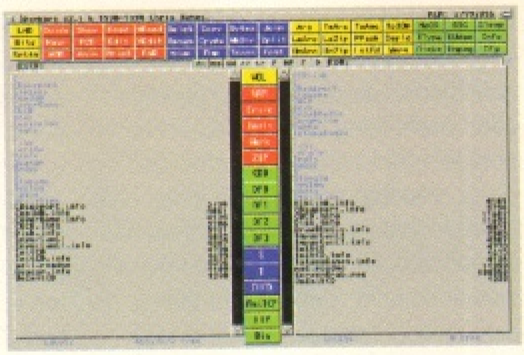
PC Task 3.1

The excellent PC emulation package is provided complete with a 10Mb hardfile to check out some useful MS-DOS applications.



Dir Work 2.1

The Amiga's best split-screen style directory utility, now on the CD in the complete commercial form. Use Dir Work to browse this and other CUCDs!



OnEscapee

A new super-demo of the fabulous OnEscapee. This time it's over 50Mb in size and features far more of the game to check out.

CoolWB

The definitive collection of workbench enhancements, icons, backdrops and more. Thousands upon thousands of files that make CUCD17 a disk to leave in your CD-ROM.

More on IDer

Reaction to IDer on CUCDs has been a mixed back of criticism and praise. Much of the problems have been caused by a lack of understanding of what IDer is for and failure to click on the essential InitCD icon.

This month we have made some changes to the IDer launcher to work around the teething problems so that this system is more fool proof.

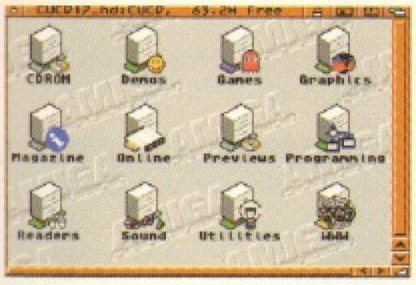
For those that missed it, most project icons on CUCDs now have IDer as the default tool. IDer allows *you* to choose exactly what viewers and players you wish to use for specific types of files.

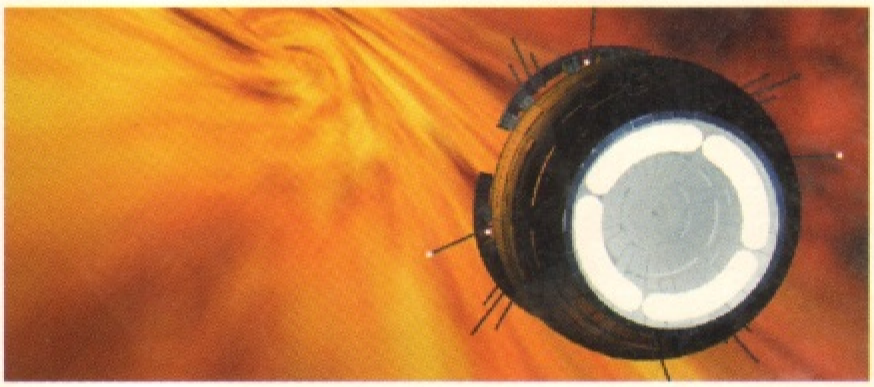
Graphics card users may display all pictures on current and future CUCDs with a hi-resolution viewer, for example. Your preferences are saved to your hard drive.

The CUCD preferences program can be found in the top left of the CDsupport drawer.

What's in your drawers?





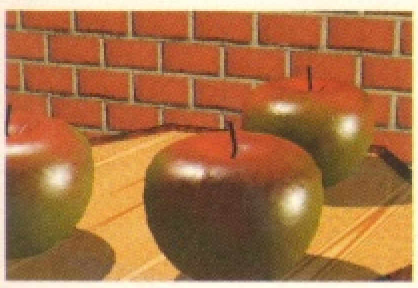


Root: The CDsupport drawer can be found in the root of CUCD17. The standard Workbench drawers icons have vanished (though the drawers remain) to be replaced with the CDsupport drawer and an opening Readme file. Draw Studio, AIR Link, the IslonaGames demo drawer and the main CUCD icon can be found here.

Quasar: Quasar's full commercial PC Task 3.1 PC emulator and the split-screen directory utility Dir Work 2.1 can be found here. There's also a PC Task 4.3 demo to try out on the hardfile.

OnEscapee: Sadeness' OnEscapee game demo revisited but this time it's several times bigger and better than ever.





CoolWB: Workbench backdrops, pictures, enhancements and icons icons icons! Revamp your Workbench like never before, you'll be coming back for this.

CDsupport: The vital support files for the CD; viewers, players, IDer and the obligatory CUCDprefs program.

CUCD: This is where the vast majority of the CD hides. What wonders can be found within...

CDROM: The latest AmiCDFS, Aminet CD indexes, CD ID collection and also the OptyCDPlayer are all found here.

Demos: AGA and ECS offerings to swirl your plasma and rotate your 3D world. Turn the lights low, crank your stereo and enjoy!

Game: Joystick fodder deluxe, AmiCheats, several Tamigotchi clones, QUID, Nemesis, Team 17 hard drive installers and an excellent SWOS 97/98 update.

Graphics: Animations, 3D Objects, pictures, the latest Picasso 96 RTG software, Ultraconv and SuperView NG.

Magazine: All of the C source files from the tutorial, the programs from Freeware roundup, AIRLink, Wired World and the free UKOnline Trial software!

Online: AmiFTP, Miami 2.1p, SANA 2 meter, web leechers, fixers, GUI html creators, RFCs and the Usenet News and CU Amiga Mailing list archives.

Programming: AMOS Mailing list archive, the source for the DICE C compiler, the MUI development and XPK compression archives.

Readers: Anims, Mods, Pix, Utils and lots, lots more all sent in by other users of CU Amiga CUCDs. Is your work here?

Sound: MIDI files, modules, samples, MPEG Audio Layer 3 encoder, Wavebeast and more files and utilities to get those speakers pumping.

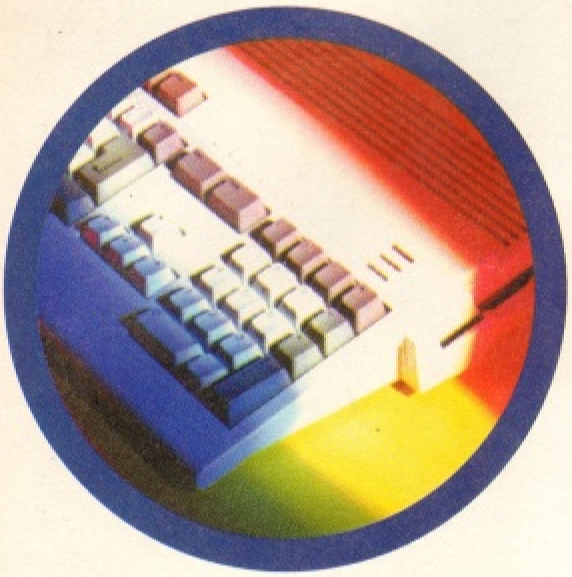
Utilities: Lots of utilities including the latest version of SysInspector, Virus checkers such as VirusZ, commodities, ASL to MUI patchers and more.

WWW: The big three web browsers, AWeb II 3.0, IBrowse 1.12 and Voyager-NG demos. The usual on-CD amiga web sites and CU Online!

Disk doesn't load?

If your CD does not load contact DiskXpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, DiskXpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first. CUCDs will work with almost all Amiga configurations and filesystems. However, we recommend older CD filesystems be replaced where possible. A non-working program is *not* an indication of a faulty CD!



News

Apple no problem for PPC

Concern over the future of the PowerPC processor has been voiced following the news that Apple computers have decided to limit the licensing of MacOS and suspend the CHRP common hardware reference platform.

Apple, under the management of returning Mac guru Steve Jobs, have decided to reign in the clone manufacturers, an interesting move at a time when Amiga International has declared that the future of the Amiga is in clones. Apple say that they were losing money at a rate of $200 for every clone sold, but ex - CEO Gil Amelio, whose departure was less than happy, has claimed that the move will lead to disaster.

The move has resulted in a lot of speculation that Motorola, who worked in co-operation with Apple on the CHRP project and produced a large number of clones and motherboards, would react badly. Some in the Amiga industry have suggested that this spells doom for phase 5's newly released PowerPC boards, but Motorola have told us that there will be no problem. Motorola have told us that PPC development is very much driven by the desktop market and they have every intention of supplying desktop PPC chips to everyone who needs them, be they phase 5 or Apple.

The future of PIOS is slightly less clear, as they had been working on CHRP based systems. Their plans for PowerPC Mac and Amiga clones continue with the announcement of the Magna series of Mac clones with MACH5 PPC processors running 350MHz 604s, but the position of the CHRP TransAM Amiga clone is more complex. PIOS tell us there is no problems sourcing the HYDRA chips, but have contingency plans if any problems arise in the future. A HYDRA less PIOS machine would not be a major problem as it was originally designed without it.

Motorola's plans for the future of the PPC family of chips makes interesting study. The massive success of the PPC in the imbedded systems market has lead to improvements in manufacturing techniques which could have interesting implications for future Amiga PPC developments. The lower end 603e chip, currently running at up to 350MHz, is being redesigned to use 0.25 micron technology rather than the older 0.35 micron it currently uses, which should lead to cooler, lower power consumption, and faster chips. This would make it a tempting CPU as a base model for future Amigas.

Looking to the future, project 2000 due for completion at the end of the decade, uses sub 0.1 micon technology and runs at 1GHz.



UK Online give Amiga support – and free trial

CU Amiga has teamed up with UK Online to offer another Internet deal, this is also based on the superb NetConnect software like the last offer. However, UK Online are now offering a month free trial. The Cover CD has all the software needed, there's no forms to fill in, if you have a modem you can get online right away!

UK Online plan to support Amiga users as no ISP has done before. Included in their plans are an implementation of a full Aminet mirror and mirroring of the most important Amiga web sites such as the Amiga Web Directory and Amiga.org etc. We will bring you full details of these developments as they come.

As added incentive to get online, UK Online have organised an impressive competition. All you need is a UK Online E-mail address which means you can be an existing user or a fresh participant in the Free Trial, see page 31 for details.

The impressive list of goodies in the prize hamper include:

Active Software's K56Flex Dynalink modem worth £129.95, a full NetConnect 2 CD worth £54.95, High speed serial card worth £79.95 and STFax Pro (fax/voice software) worth £29.95, a UK Online Family Internet account for a year, Sadeness Software's Hidden Truth and AGA Experience 3 CDs, and of course a subscription to CU Amiga Magazine.

As if this hamper wasn't enough, by the time you read this, it's expected that there will be an even bigger array of prizes on offer. Drop by http://www.ukonline.co.uk/Corporate/Comp/amiga.html for full details on the competition.

So what are you waiting for? Get a modem, get on-line with the UK Online free trial and enter the competition! More information can be found on page 31.

Cloanto to make Amiga Emulator

An official "Powered by Amiga" Amiga emulator for PC compatibles is to be released by Cloanto, the Italian creators of Personal Paint.

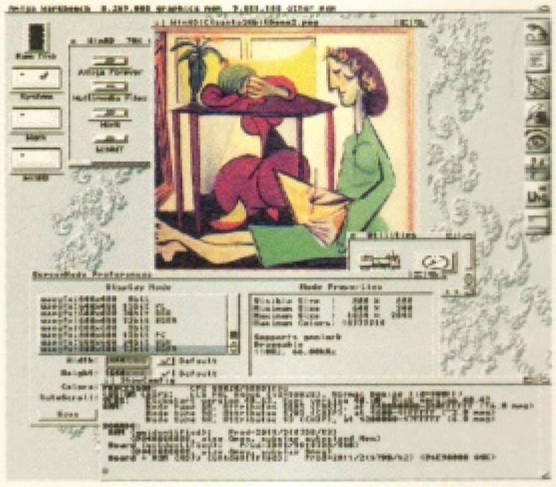
Cloanto's new emulator, entitled Amiga Forever, is based on UAE the ECS emulator which has been around for a while now. Cloanto have acquired licenses to use AmigaOS 1.0 through to 3.0.

The Amiga Forever package will include Amiga Explorer (an Amiga to PC networking solution). The user interface is an object oriented extension to the Windows desktop, upon which the Amiga appears as a networked computer. Connection will be made via serial or parallel ports. A future upgrade is planned to use TCP/IP networking.

Unlike the previous situation with UAE, Amiga Forever will be easy to use with an Amiga operating system pre-installed.

The Amiga Forever package will come with a floppy disk with the Amiga networking software on it, a CD with the PC software and a collection of Amiga software including Personal Paint. The Picasso 96 emulator makes the software package a lot faster with P96 compatible software.

Cloanto have answered worries that this will damage the Amiga by pointing out that a lot of ex-Amiga owners will be attracted back, and that emulating the complex chipset of an Amiga is never going to be a cheap replacement for the real thing.



▲ **Keeping the Amiga alive – on a PC. Is Cloanto's Amiga Forever the way forward?**

RC5 cracked

The largest exercise in distributed computing has come to an end with the news that the 56 bit RC5 encryption algorithm from RSA labs has been hacked.

This privacy cypher took the combined computing power of the equivalent of over 20,000 top end personal computers 160 days to crack. over 4000 teams contributed to the effort, and readers will be glad to know that the Amiga team effort was spectacularly successful.

RC5 Amiga, administered by Thomas Tavoly, ran for only 63 days but managed to achieve an amazing 7th place in the overall rankings, one place above the BT effort which started the previous day, and 30 places above the Microsoft effort. The table for average key rate, which represents the amount of computing power put into the effort and not the length of time the team had been working, puts the Amiga in 4th place.

The top team was Apple and the key was found by Peter Steuer of the Starlabs team after 47% of the keys had been checked.

Next on the agenda is the 64 bit encryption algorithm. At the present rate this should take 130 years, but computer keep getting faster. This time around PPC Amigas will be helping the effort! For more info visit http://www.rc5.distributed.net

Access Amiga clones

Index information are shipping their public display/point of sale multimedia delivery system based on the Amiga.The Access is a 5 1/4" width motherboard designed to fit into a standard width drive bay. The system is sold either as a board with fascia and disk drive which slots into a standard PC type towercase, or in a half height case designed for maximum compactness.

The Access, now redesigned to take 68020 or 68030 processors, is equipped with 2 Mb chip and 2 or 8 Mb fast RAM, a sound sampler with microphone input, non volatile RAM for configuration information, an ISA slot for low cost modems or ethernet solutions, a real time clock, CDDA input and mixer, CD filesystem software on ROM and an IDE interface.

It is aimed squarely at the professional display and control systems markets, where it is already attracting a lot of attention. We have heard of a number of people who have purchased or are interested in purchasing these machines for everything from multi channel control solutions for theatrical sound effects to point of sale display systems for a large high street multiple. Current prices for the equipment are as follows:

Motherboard & Brackets:
- 1-99 units $415
- 100-499 units $370
- 500+ units $330

Full Access:
- 1-99 units $510
- 100-499 units $465
- 500+ units $420

Available options include CD-ROMs, hard drives and LS120 drives. For more details contact Index information on +44 (0)1256 703426.



News in Brief

Gateway posts $1.7m losses

Despite record sales and a growing market share, Gateway 2000 posted a loss for the third quarter of 1997. Revenues were up $300,000 from the same period last year, but "one-time" charges mostly involving the purchase of the Amiga assets and Advanced Logic Research, a server manufacturer, hit profits. Gateway's income was also impacted by the long summer shipping strike in the US, which cut sales and raised shipping prices.

E-Boutique seek loyalty

UK highstreet games retailer Electronic Boutique are introducing a customer loyalty card along the lines of the loyalty card schemes operated by many supermarkets. EB are one of the last major retail outlets in the UK regularly stocking Amiga games, and it would be a very useful thing if a large number of Amiga users registered with this scheme, making it clear to EB just what platform it is they are interested in. EB run a freecall customer service line on 0800 317778.

Lotus Pacific announces broadcast system.

Lotus Pacific have announced a joint presentation by themselves and Chinese Central Television Teletext of the Wonder TV broadcast system based around the Wonder TV A6060. The system will provide subscribers to cable channels a host of information services including Internet access. As the dispute between Lotus Pacific and Gateway 2000 is rumoured to be near settlement, the fabled Chinese Amiga looks to be taking off at last. We have heard intriguing reference to an A5800 desktop model – be sure to check CU Amiga for all the latest details as they happen.

Micronik set-top box

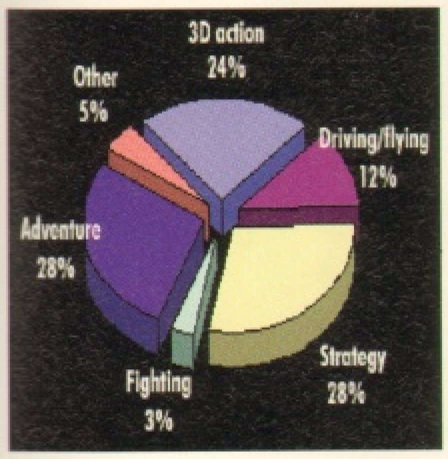
Micronik appear to be entering the set top box market with an Amiga based solution. Very few details of the hardware is currently forthcoming, but the story is that there will be a cable box initially, to be followed by a desktop Internet box / multimedia station called the M-Box. We'll give more details as they come in.

Wishlist results from ClickBOOM!

The results of the ClickBOOM wishlist published in the July issue of CU Amiga have been published. Taking in voters via post and E-mail, ClickBOOM received votes from nearly 5000 voters on what sort of games they would like to see in the future. The table opposite shows the final rankings, but further tables can be seen by checking out the ClickBOOM website at http://www.clickboom.com. It is interesting to note the differences in voting patterns between those who voted via the Internet and those whose votes CU Amiga collected via post. The postal voters put Quake down in 5th place. Undoubtedly this game is more popular to those with an Internet connection.

On the other hand postal voters loved Theme Hospital, which made it to 10th in the chart for postal voters. The differences between the two sets of voters suggests that Internetters have higher spec machines and, rather obviously, that they are more keen on network gaming!

Winners of the ClickBOOM games giveaways are:
Mr M.Pearce, Croydon
Ben Coulthard, W. Yorks
Frank Parker, Birmingham
all of whom will be receiving a copy of Myst, and:
A.Skourous, Athens
Martin Sinclair, W.Yorks
Lewis Jones, Essex.
who have won a copy of Capital Punishment.



Total votes

1.	Monkey Island 3	1612
2.	Quake	1482
3.	Red Alert	1319
4.	Settlers 2	1006
5.	Diablo	937
6.	Tomb raider	912
7.	Civilization 2	877
8.	Grand Prix 2	843
9.	X-wing ; Tie-fighter	751
10.	Duke Nukem 3D	682
11.	Warcraft 2	648
12.	Command & Conquer	628
13.	Simon the Sorcerer 2	462
14.	Wing Commander 2-4	398
15.	Wipeout	384
16.	Need for speed	317
17.	Mechwarrior	283
18.	Tekken	262
19.	Resident Evil	249
20.	Theme Hospital	231
21.	MDK	182
22.	Ultima VIII	180
22.	Dark Forces	180
24.	Daytona	165
25.	3D Lemmings	158
26.	Indy Car Racing 2	157
27.	Battle Isle 2	154
28.	Doom	152
29.	NHL 97	143
30.	Descent	140
31.	Screamer 2	139
32.	7th guest	138
33.	MK3	123
34.	Fifa	116
35.	Albion	92
36.	Battle Arena Toshinden	88
37.	Heores of Might&Magic2	85
38.	Earthworm Jim	80
39.	Virtua Fighter	79
40.	Putty Squad	52

Epic sell XG



Epic Marketing will be selling the Yamaha MU-10 midi plug in module compatible with project XG. It is fully cased, and is powered by battery or mains. It has external analogue inputs to its effects processors and midi in and out along with the serial host port. Other than that it has XG's 32 note polyphony, 676 voices with DSP effects and 18 bit resolution. MU-10 will be sold for £199.95.

Epic are also working on a variety of CD projects, including a huge collection of old games. They have licensed use of OS1.3 from Amiga international to make sure they all run! Epic are looking for graphic artists for some of these projects, contact them for details. Call Epic marketing on +44 (0)1793 514188.

News in Brief

Digital cameras for the Amiga

The digital photography revolution is coming to the Amiga at last. Versalia Computer of Germany have produced image transfer software which supports the Casio QV series, Fuji DS7, Kodak DC20 and Minolta Dimage V cameras. It includes AREXX and CybergraphX support. Vesalia are selling the software for DM99, but also sell bundles including the cameras. We hope to bring you a full review of this system soon, until then for further information call Vesalia Computer on +49 (0)2852 9140 or visit their website on http://www.vesalia.de

Vulcan changes

Vulcan software limited have announced a major change to the working structure of their operations. Following a similar announcement last month from Sadeness software, they have announced that in the future their distribution will be handled exclusively by GTI GMBH and Weird Science in the UK. Vulcan felt that with so much of their effort being directed towards developing exciting new titles such as Genetic Species, Hell Pigs and the recently announced Virtua Cop clone Hard Target, they felt it was time to find a seperate distributorship. For more details contact Vulcan Software on +44 (0)1705 662226 or Weird Science on +44 (0)116 2463800. Vulcan's web page is on http://www.vulcan.co.uk

Amibench On-line stores

Amibench will be expanding its current services to include an online database of Amiga stores. Amibench has been offering an excellent service to Amiga owners wishing to buy or sell second hand Amiga gear. Adverts may be written or read via their internet web pages 24 hours a day. Now they are looking for information on Amiga stores world wide. Send details of your shop name, address, e-mail address, website, phone number and fax number to : stores@tecnobab.stayfree.co.uk with the word "Stores" as the subject line.

For more information on the Amibench, e-mail Mark Wilson on Amibench@tecnobab.stayfree.co.uk or check out the web-site itself at http://thunderstorms.org/AmiBench.



Stateside News

by Jason Compton: **Jason Compton is Editor in Chief of Amiga Report Magazine**

$107 Million and the Long Run

It may be true that in the long run we're all dead. For Gateway 2000, in the long run it's clear that they knew that just selling Windows PCs to home users wasn't going to give them the sort of performance they wanted.

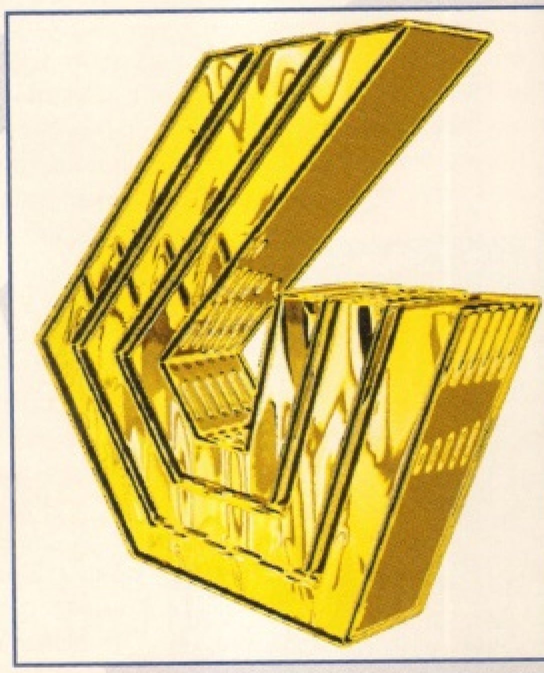
Gateway does most of its selling over here in the USA, where as you no doubt know PC prices are low compared to most of the rest of the world. That's because the PC market is so heavily competitive – getting involved is about as easy as finding a wholesale supplier, placing an ad and waiting for the phone to ring. It's gotten to the point where the PC hardware business is looked at as one of the most competitive and easiest to enter businesses in the world.

Lots of competition has the tendency to push down prices – so far so good. That has the flip side of reducing profits, too. In the long run we're all dead, and if we've got 50,000 competitors, profits aren't too healthy either. The people at Gateway are smart, and knew that this sort of thing happens.

So not too long ago they took steps to counter the problem. They started looking at higher value (read: more profitable) products. In all likelihood, they looked at the corporate PC server market that their closest competitors did very well in. Those machines are expensive and very high tech, and fewer companies provide them to corporations. Price competition wasn't as high, so Gateway looked for a way in. Rather than try to sell their folksy cow boxes straight to companies as a solution, they worked to aquire an established PC server firm. Again, so far so good. Then they looked for some real value – a technology that would be theirs, lock stock and barrel, and whose rising fortunes would benefit them first and directly. Now, it's unclear how this all worked from start to finish, but as we all know they found the Amiga and decided that they had to have it.

Nobody likes losing money, certainly not $107 million. But before you worry about an "Amiga curse", keep in mind that it was more the mechanism of the American and worldwide PC market that reared its head this time, and that more importantly, Gateway has taken a huge step toward remedying the problem.

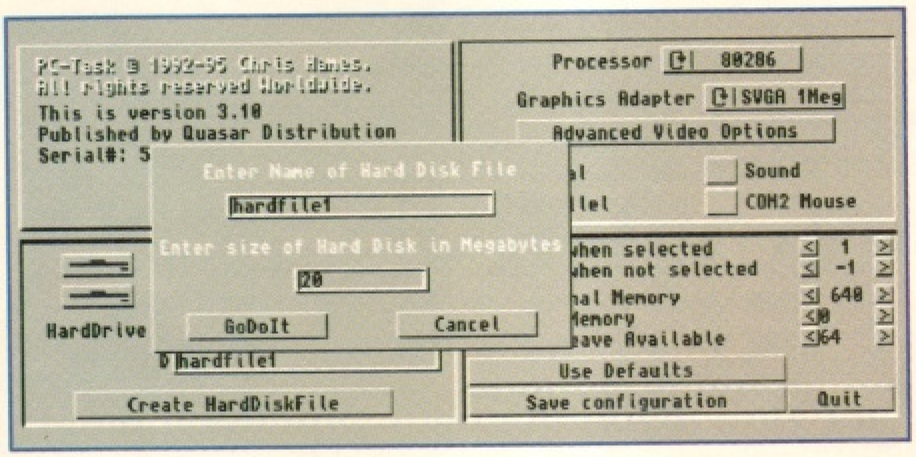
The Amiga is the cure, not the disease, for Gateway 2000.



Windows 95 on Amiga

In the race for dominance in the PC emulator market, PC-Task has achieved an important first. Quasar Publications recently released PC-Task 4.3, supporting Windows95. The company recommends this for 060 users only due to the extremely high overheads of Windows95 on the emulator.

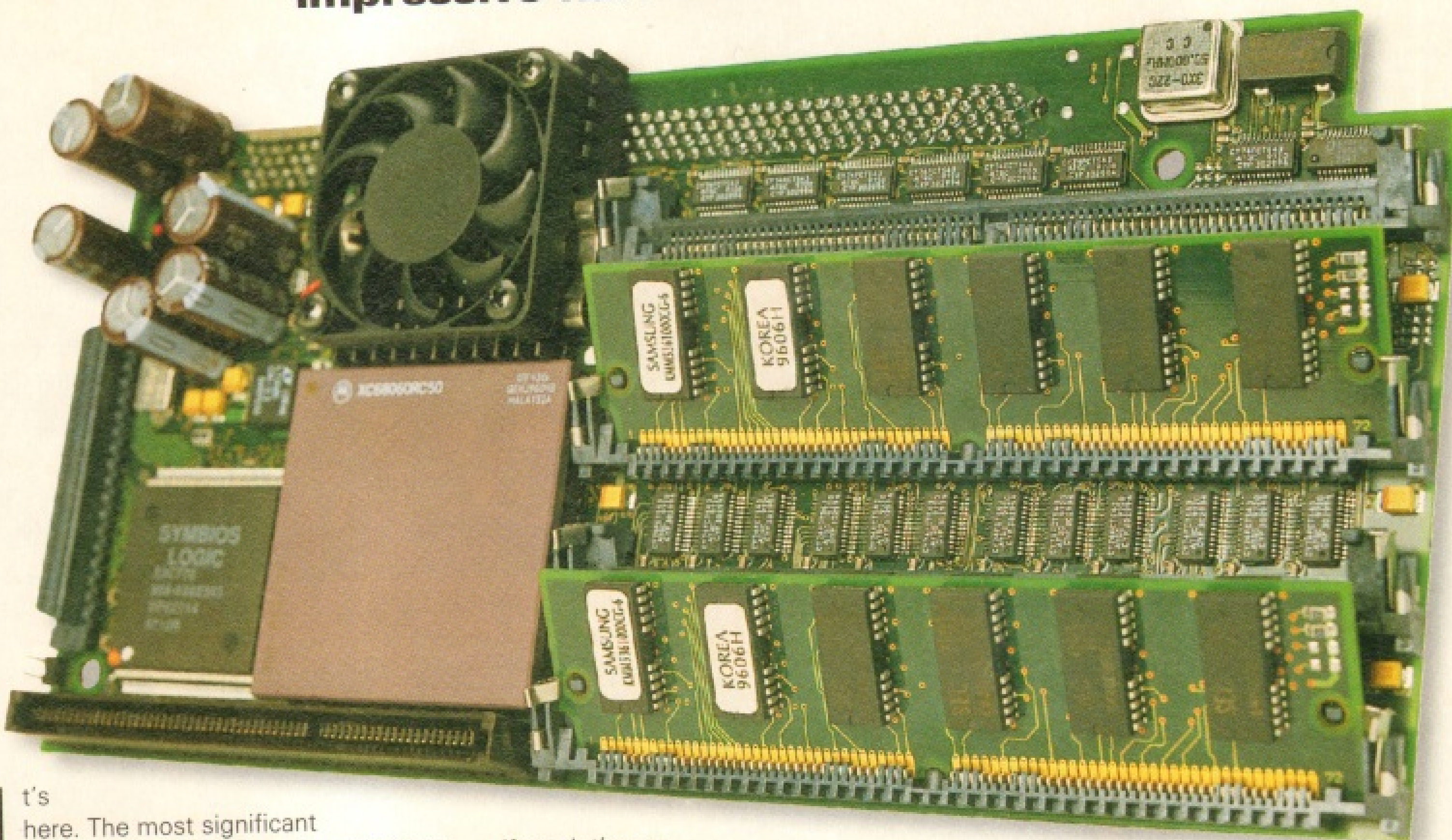
For some time, PC-Task and its rival from Microcode Solutions, PCx, supported DOS and Windows 3.1. But PC-Task can now run Microsoft's most recent offering, for those Amiga users who require compatibility with the newest PC applications. While neither program ships with any PC operating system, users interested in emulating on a budget or in simply keeping their money from Microsoft may want to know about Caldera OpenDOS. OpenDOS is the latest incarnation of the former DRDOS and Novell DOS, now owned by Caldera and available free for evaluation use. For most purposes, OpenDOS is the functional equivalent of MS-DOS. OpenDOS can be downloaded from www.caldera.com. It is not yet compatible with PC-Task and PCx, but both companies are now aware of OpenDOS and are making the necessary changes. Check out this month's CD for a demo of PC-Task 4.3 as well as the fully working version 3.1.



Advertisers Index

First look at PowerUp

Woo! Look what turned up in our post bag, phase 5's lovely new Cyberstorm PPC from Power Computing. We take a preliminary stroll around the impressive hardware ahead of next month's review.



▶ That's it, that's the card we've all been waiting for. It's a loaded up Cyberstorm PPC for any big-box Amiga with a fast slot. That little 200Mhz PowerPC 604e is on the fast side too!

It's here. The most significant upgrade for the Amiga since AGA five long years ago. The leap from an 80s architecture CPU to state of the art computational power. Phase 5's PowerUp project threatens to address the Amiga's weakest area and propel it beyond the capabilities of high end PCs . We're talking about the PowerPC processor family whose lowest member is twice as fast as the 68060 and with seven times higher clock rates. That's on the nippy side.

The first PowerUp model to appear is the Cyberstorm PPC. This is a big box so-called 'fast slot' connected accelerator which fits A3000s and A4000s. Also, importantly, it will fit the forthcoming Amiga clones also equipped with fast slots. The Cyberstorm PPC is phase 5's no compromise expansion, with some seriously groovy interfaces.

Fitted with a 64-bit DMA interface, phase 5 have slated this port for use with their forthcoming Cybervision PPC. This will be 2D and 3D graphics far and away beyond any existing Amiga video card and even beyond that of most PCs.

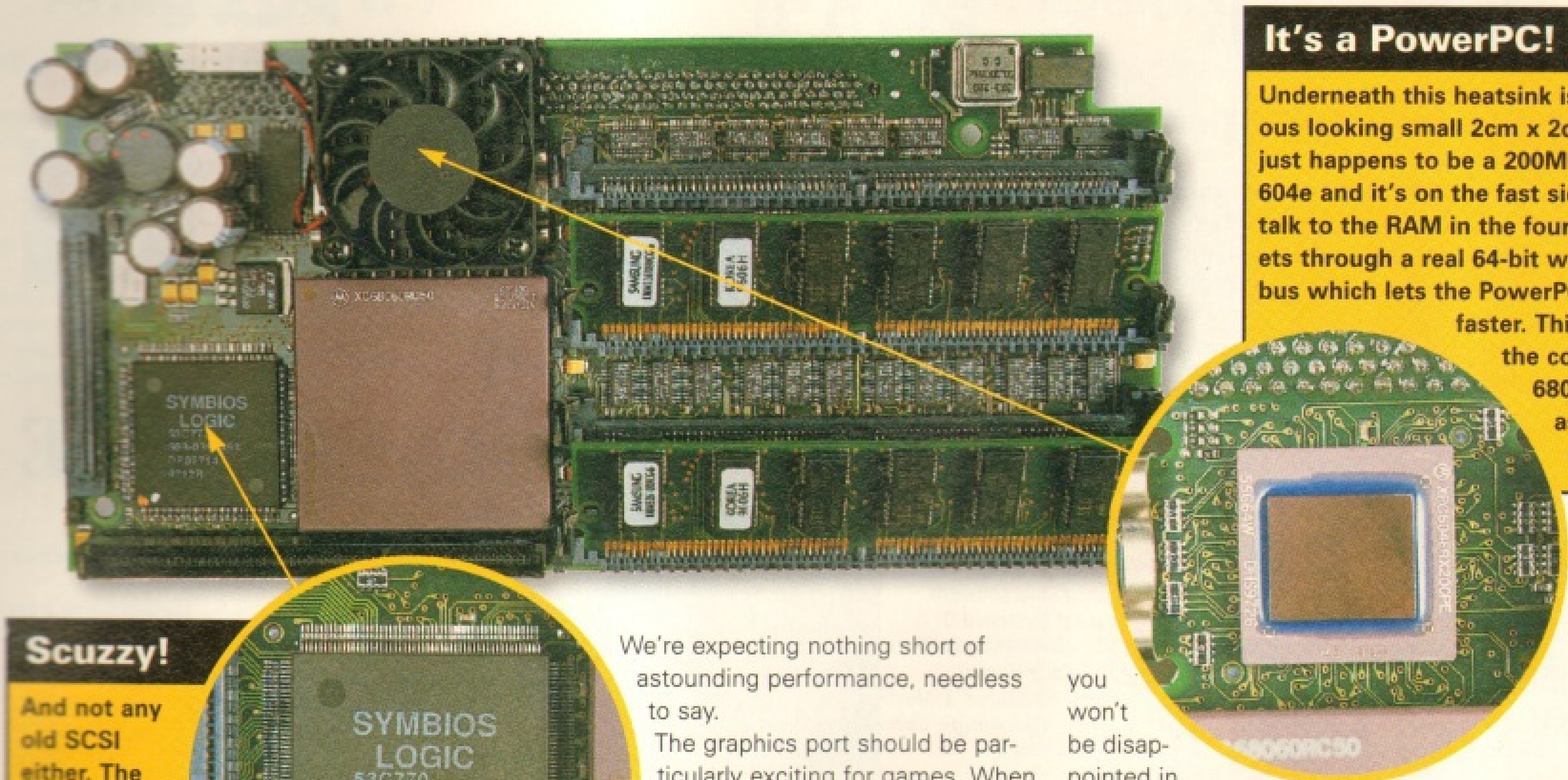
PowerUP®
AMIGA™ GOES POWER PC™

▲ phase 5 unleash the fruits of their masterplan to get the Amiga back on top.

Outrageous power

Excited yet? Then there's that 'ultra' Wide DMA SCSI controller from hell. The awesome 53C770 controller is capable of driving the latest, largest and best hard drives on the market at speeds as fast as hard drives currently go. We're talking about outrageous CPU power, outrageous graphics power and outrageous hard disk I/O. It's unbelievable! But this is the first stage in the German PowerUp masterplan. The part everyone is excited about is the PowerPC 604e sitting next to the large 68060 chip. So far this is only starting to be exploited by software and its authors. Some developers have had access to Cyberstorm PPCs for a few months but the lack of a proper Amiga native PowerPC compiler is the next hurdle in the PowerUp evolution.

Work is progressing all the time and there's already a small collection of



It's a PowerPC!

Underneath this heatsink is an innocuous looking small 2cm x 2cm chip. It just happens to be a 200Mhz PowerPC 604e and it's on the fast side. It likes to talk to the RAM in the four SIMM sockets through a real 64-bit wide 66MHz bus which lets the PowerPC go even faster. This also helps the companion 680x0 CPU such as the 68060 pictured.



Scuzzy!

And not any old SCSI either. The 53C770 chip here is a state of the art Ultra wide SCSI controller capable of driving the newest, largest and fastest modern SCSI hard drives on the market. Just to the left you can see the UW SCSI connector, it's going to be tricky to find a cable...

PowerPC supporting programs. Some of the key software support provided with the Cyberstorm PPC will be greatly improved next month and it's then that we plan to review the Cyberstorm PPC from start to finish and take it through the hoops.

Miniscule PowerPC

All that's to see of the PowerPC on the Cyberstorm PPC is a small heatsink and fan array smaller than the bare 68060.

Removing this, a miniscule chip can be found that's only 4x4cm in size. The difference in technology has never been more obvious when comparing the tiny 200MHz square compared to the huge 680x0 chip. The small jungle of bulky capacitors next door are part of a power conversion circuit as the PowerPC requires 3.3V instead of the Amiga's universal 5V.

The CyberStorm PPC's four SIMM sockets must be used in pairs as the entire design sports a 64-bit path to memory on a bus running at 66MHz. Even the 68060 benefits from this memory interface making the Cyberstorm PPC the fastest 68060 card we've yet seen.

No doubt the ultra wide SCSI port on the card will cause some wiring confusion in the short term. No-one seems to supply cables to connect existing hard drives and external devices to it, yet. For this reason alone, those tests will have to wait until next issue.

We're expecting nothing short of astounding performance, needless to say.

The graphics port should be particularly exciting for games. When phase 5 bring out their CyberVision PPC, the 3D capabilities of the Permedia 2 can be compared to those of a Nintendo 64 in high resolution. Coupled this with the CPU power offerd by a 604e and there's no 3D game anywhere that wouldn't look stunning on this combination.

Is it really worth it?

This first card not cheap by any means. Initially avaible in only the pedigree 200MHz 604e and 50MHz 68060 varieties, hopefully the initial rush of professionals and the must-have maniacs will die down quickly and phase 5 can ship the economical varieties with 68040 and 150MHz 604es. After all, they do have to finance the development of the add-on cards.

Right now, the most use of a Cyberstorm PPC is to be had in the fast 68060 system. Then, assuming you can find the cables, the incredible SCSI on board. So for many, the time for PowerUP at these prices is not right.

However, work progresses on the far cheaper Amiga 1200 PowerPC 603e versions and by then, software support will be far more wide spread. Shareware authors having access to PowerPC is what PowerUP really needs to succeed. If you want to take an expensive slice of the future, here and now, you won't be disappointed in the short term, or the long. The rest of us wait eagerly for news of the A1200 units, also next month.

Rumour is that there will be some big announcements of key companies being enticed back to the Amiga on the basis of PowerUP. Stay tuned, things are hotting up.

Software at a glance

Phase 5 initially shipped the Cyberstorm PPC with some shaky installation software although the printed installation manual is an improvement. The CD contains some PowerPC demos and some developers material for card based on the free GNU C compiler. There's was no serious native compiler or in-depth documentation available initially.

The demos include the suitably impressive LW Show, a utility for displaying Lightwave objects very, very quickly. There's also a fractal explorer, MPEG video player and an MPEG audio layer III player which we found impressive. The former naturally support CybergraphX for fast realtime MPEG video player (even VideoCD) and the latter supported AHI for output to Paula or 16-bit sound hardware alike.

It sounded superb and all the hard work was done by the PowerPC. ■

Mat Bettinson

Is PowerPC really the saviour of the Amiga?

Not quite yet, but if all goes to plan it will be. The Pentium's progress left Motorola's 680x0 CPUs far behind long ago, and even the desirable 68060 can't touch the new generation of Pentiums. As a result the Amiga is stuck with a brain that now looks hopelessly out of date. But look, what's that galloping towards us from the horizon in a cloud of dust? Yes, it's Motorola's new PowerPC chips! They've come to save us. They'll give those PCs a run for their money, and transform our Amigas into supercharged beasts capable of handling all kinds of applications that are just plain impossible with just a 680x0.

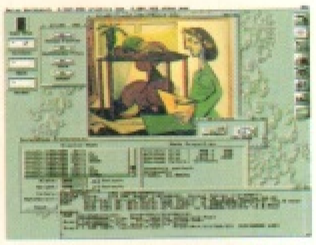
Once the CPU has had such a radical upgrade, the doorway is open for the rest of the Amiga's architecture to get similar treatment, from improved graphics displays and audio processors to ultra-fast I/O interfaces. So the answer is yes.

SOFTWARE

Amiga Forever

Commercial Amiga emulator for the PC.

Includes Amiga operating systems, ROMs and emulation software pre-installed. Picasso96 driver (8/16/24-bit) and "Amiga Explorer" networking solution.



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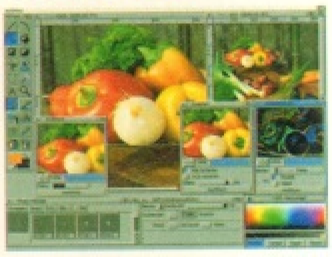
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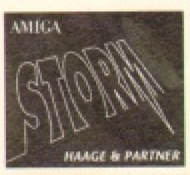
Storm Software

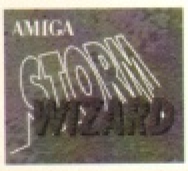
StormC V2.0 Base Package Non Commercial license	£119.95
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Fusion

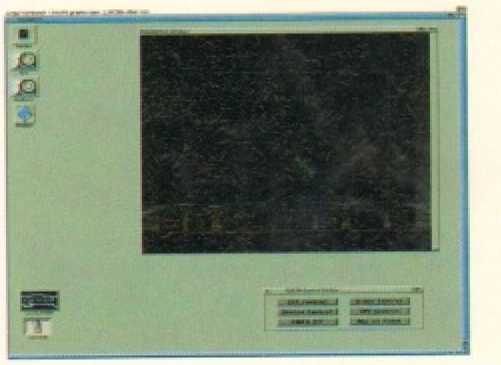
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Runs practically all the latest Mac software.
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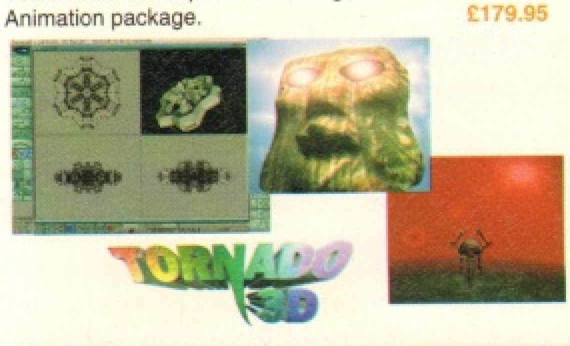
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Tornado 3D

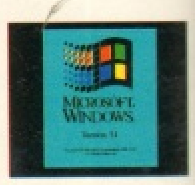
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PCx - Software PC Emulation - Advanced 80x86 PC emulation.





PCx

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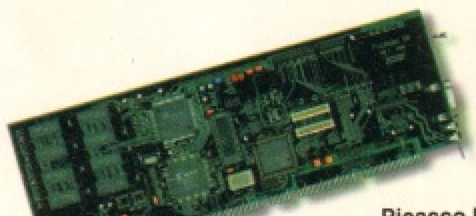
HARDWARE

Various

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VGA Adaptor (23-pin Amiga to 15-pin mon.)	£ 14.95
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Picasso IV
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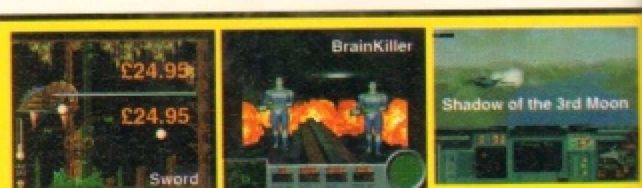
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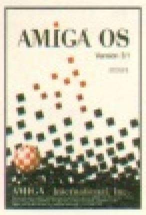


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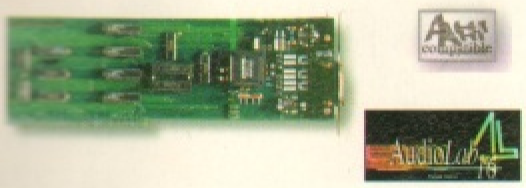


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Prelude

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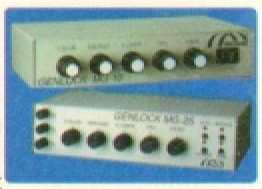
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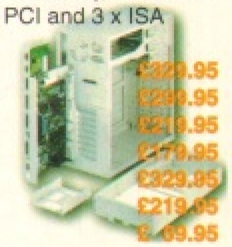
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Accelerators - PPC and 68xxx

PowerPC 604e Accelerators for Amiga 3000/4000

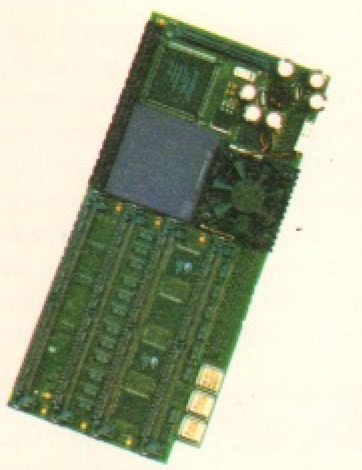
PowerPC604e 150-200 MHz
68040/68060 25-50 MHz
max. 128 MB RAM
Ultra-Wide SCSI

CyberStorm PPC-604	150 MHz	180 MHz	200 MHz
Companion CPU Socket	040 or 060	040 or 060	040 or 060
MIPS	-	-	350
SpecFP95	-	-	7.1
Max RAM	128Mb	128Mb	128Mb
SIMM Sockets	4	4	4
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Price	£469.95	£539.95	£619.95
Price with 68040/25 fitted	£509.95	£569.95	£649.95
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Fast SCSI-II

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PowerPC603e @ 200 MHz
68040/68060 25-50 MHz
max. 128 MB RAM
Fast SCSI-II



Blizzard 603/603+	175 MHz	200 MHz
Companion CPU Socket	030	040 or 060
MIPS	250	280
SpecFP95	3.1	3.5
Max RAM	64Mb	64Mb
SIMM Sockets	1	1
SCSI On-board	SCSI-II	SCSI-II
Price	£289.95	£374.95
Price with 68030/50 fitted	£324.95	
Price with 68040/25 fitted		£419.95
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Registered Upgrade Price		£274.95

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AIR Link Part 2

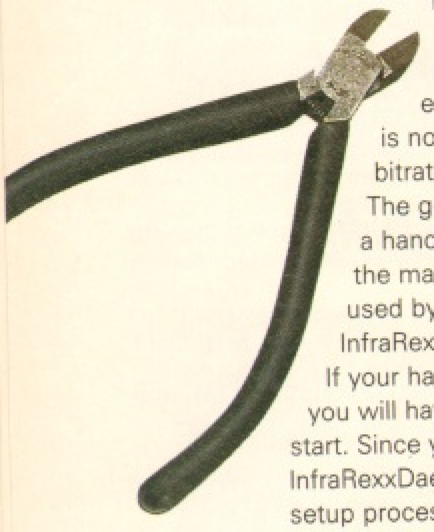
Last month we built the fabulous DIY AIR Link. This month Neil Bothwick dives in the deep end and tackles some practical applications.



With last months excellent AIRlink DIY project, you can now interface your Amiga with almost anything that sends or receives infra-red signals. Obvious examples include using a TV remote control to run programs on your Amiga, or using the Amiga to control your TV, VCR, Hi-Fi etc. The uses are endless, limited only by your imagination, but first you've got to get AIRlink talking to your infra red device. First we will look at setting up AIRlink to work with your equipment, and then try a few examples using InfraRexx.

Setting up

The basics of using InfraRexxDaemon and InfraRexxEditor were covered last month.



The most critical part of the setup is the bitrate, if this isn't right, things will not work properly. The bad news is that there is no easy way to determine the bitrate of a unit, only trial and error. The good news is that there are only a handful of common bitrates used by the majority of handsets. The rates used by the sample codesets from InfraRexx are shown in table 1.

If your hardware is not listed here then you will have to make a guess where to start. Since you will need to stop and start InfraRexxDaemon quite frequently during the setup process, it will be easier if you leave its icon out on the Workbench for now. Quit the daemon if it is running, start the editor, create a new entry and select edit.

The most important gadget here is the one containing the infrared bitstream. Once you learn a code it will contain a string of 1's and 0's corresponding to the pulses of the infrared signal.

Now select Learn and press a button on the remote control. Then repeat the process, watching the contents of the bitstream gadget. If they change it means AIRlink isn't seeing the same code each time, so you have the wrong bitrate. Exit the Edit window, change to another bitrate setting and try again.

Once you achieve consistent results from repeatedly learning the same button you have a good bitrate setting. It is worth taking the time to get the bitrate absolutely right for the first button, if you find you need to change it later on you will have to re-learn any codes you have already learnt.

Now we can learn some codes and assign commands to them. the first thing to do is make sure you have a DEFRECEIVE tooltype set in InfraRexxDaemon, this will alert you to any unrecognised signals. Copy the Flash command from the cover disk/CD to C: and add the following tooltype to InfraRexxDaemon

DEFRECEIVE='address command flash'

This will either flash the screen, or do whatever alternative you have configured in Sound Preferences. If the daemon was already running when you changed the tooltype, you will need to stop and restart it.

Playing music

The first example uses AIRlink to play mods through HippoPlayer, which is in the CDSupport drawer of most CUCDs. The ARexx port of HippoPlayer is called, surprise surprise, 'HIPPOPLAYER'. To program a button to start playing CD, create and learn the code for a button on your remote control, then set the ARexx receive command for that button to 'ADDRESS HIPPOPLAYER PLAY'. Note the single quotes surrounding the command, these tell InfraRexx that this is an ARexx command to execute, not a script to run. You can now do the same with other buttons for Stop, Fast Forward, Rewind etc.

This is fine for buttons that always do the same thing, but most remote controls come with a single Power button to switch on and off. This is where InfraRexx's ability to run ARexx scripts is so useful, and the scripts don't need to be complicated as you can see from Table 2, it only a has two lines. The first line checks for the presence of HippoPlayer's ARexx port and starts the program if it doesn't find it. If the port is already there, the second line sends it a QUIT command. Save the script as REXX:HippoStart.irx and set the ARexx

Table 1

1125 Philips Reflex
1667 Sony
1800 Canon
1818 Akai Canon Hitachi Kenwood NEC Teac Yamaha
1786 Onkyo
1887 JVC
2500 CDTV Panasonic Pioneer Samsung Sanyo Technics
3636 Sharp

Table 2

```
/* Turn HIPPOPLAYER on and off via
InfraRexx */
if ~show('P','HIPPOPLAYER') = 1 then
address command 'run >NIL:
CUCD:CDsupport/HippoPlayer/HiP'
else address 'HIPPOPLAYER' 'QUIT'
```

Receive command for the Power button to HippoStart with no quotes. Restart the daemon and the power button turns HippoPlayer on and off, just like a HiFi system.

You could use the same principles to work with any module or audio CD player with an ARexx port, just by changing the address and commands. I use AIRlink to play audio CDs through YACDP using a remote control.

This is only the start of what you can do in terms of controlling your Amiga with a remote control. A module or audio CD player is a good first step, most player programs have ARexx commands for the main functions, and it is genuinely useful if you have your Amiga in your living room, hooked up to a decent set of speakers.

Controlling an infra device

One example of controlling an external device from your Amiga would be to have it control your video recorder, taping programs from a list whenever you are out.

Ok so video recorders have timers, but you have to remember to program them each time, and repeat timers usually require that beforehand the recorder is switched to timer mode. How about setting your Amiga up to automatically record all of your favourite programs? All you need to do is make sure there is a tape in the VCR and that your Amiga is switched on.

This example assumes you have a way of launching arexx script at regular times, something like CyberCron or Recall will do this. CyberCron is on the CD. These programs allow you to specify that a certain action takes place at a particular time on specified days. In this case the action would be to run the ARexx script in Table 3 with programme details. You can set it to run at any time before the programme is due to start, provided it is the same day. You call the script with this command:

rx StartVCR.rexx Channel StartTime Length

Note that it is .rexx not .ifx since this is a script called by you to control InfraRexx, not the other way round.



The start time needs to be given in the standard HH:MM format (using the 24 hour clock) and the length is given in minutes. For example, to record Coronation Street at 7.30pm you would use:

rx StartVCR.rexx 3 19:30 30

This script is quite basic, there's no checking that the information you give it is valid. You can add this sort of check if you wish, but it's not much point if the script returns an error message when you are not there, so give it the right information to start with. Don't type in the line numbers, they are there for reference only, and be careful with the quotes, it is important that you do not mix up single and double quotes. Save the script as REXX:StartVCR.rexx



Line 9 reads in the variables you have given it, Line 12 pops a requester up on the screen telling you what is going to happen. This means you can, for example, turn the VCR off if are in and you want to watch the program instead of record it, as well as warning you that it is about to start, so you can set the script to be run 5-10 minutes before the programme is due to start. Line 13 uses the AmigaDOS WAIT command to pause until the time reaches the programme's start time. You could add a bit of ARexx here to subtract a couple of minutes from the start time to start recording slightly before the programme's start time.

Lines 14 and 15 do the real work (or at least tell InfraRexx to do it) by sending commands to the video recorder to change to the correct channel and start recording. Lines 16 and 17 wait until the programme has finished and then send a Stop signal to the recorder. Finally Line 18 lets you know that recording has finished.

There is a lot more that could be done with some more ARexx, but this isn't an ARexx tutorial. If you know some ARexx already, have a look at ways of starting recording a minute or two early and stopping five minutes late. You could also use ARexx's own Delay() function instead of Wait.

This only scratches the surface of what can be done with InfraRexx. There are programs available to allow your Amiga to respond to voice commands, you could amaze friends and family with your ability to control household appliances merely to talking to them! Don't forget the competition for the best uses of AIRlink.

No ARexx?

All of this assumes that the program you want to control has an ARexx port, but not everything does. There are two solutions to this. Firstly, you can use any AmigaDOS commands through ARexx by using the "command" port. The use of 'address command flash' for the DEFRECEIVE tooltype illustrates this. for a more flexible approach, there is a program provided with AIRlink to send input events (key presses, mouse clicks etc.) to your Amiga. Put RexxEvent (and its icon) in WBStartup to have it available whenever you use your Amiga.

To send an event with RexxEvent you send it to RexxEvent's ARexx port. Start RexxEvent and add 'address REXXEVENT "<rcommand e>"' to a button on your remote control. A list of the qualifier key commands can be found in the Commodities section of your workbench manual. The "<>" brackets tell RexxEvent to process these two keys together, make Workbench think you have held down Right-Amiga while pressing E.

OK, it's a pretty useless example, so here's something better. 'address REXXEVENT "<rawkey lcommand up>"' will move the mouse pointer up. A CDTV remote control has joypad style buttons, so you if you like you could use it as a cordless mouse/joypad by adding the relevant commands to each button.

CD users may like to check out InputStream in the Magazine drawer. it is similar to RexxEvent but with more features, like direct control of mouse position. It also has a more complete description of the available input events.

That's it for now. remember the competition announced in last month's CU Amiga for the best ideas for AIRLink. ■

Neil Bothwick

Table 3

```
1) /*
2)  Instruct InfraRexx to record a specific
program on your VCR
3)  This assumes you have configured
the following ARexx Transmit commands
4)      VID_STOP
5)      VID_RECORD
6)      VID_1 to VID_6 for the channel
select buttons
7)  */
8)
9) parse arg Channel StartTime
ProgLength
10)
11) address command
12) 'Run >NIL: RequestChoice >NIL:
"AIRlink" "Recording channel' Channel 'at'
StartTime "" "OK"'
13) 'wait until' StartTime
14) address 'INFRAREXX' 'VID_'||Channel
15) address 'INFRAREXX' 'VID_RECORD'
16) 'wait' ProgLength 'mins'
17) address 'INFRAREXX' 'VID_STOP'
18) 'Run >NIL: RequestChoice >NIL:
"AIRlink" "Recording of channel' Channel
'finished" "OK"'
```

Latest Technology Modems

K56Flex modems are here! Download software and web pages <u>upto</u> twice the speed of a 28.8 modem. 56k modems will operate at 33.6K speeds for uploading but you can cut your phone bills drastically when using the 56K technology! Isn't it about time you upgraded that 14.4 or 28.8 modem? For further information about the new K56Flex (Rockwell developed) technology contact us!

We only supply quality **branded** modems (Dynalink UK Ltd or Diamond SupraExpress), which may cost slightly more than their unbranded competitors, but they ship with a 5 year warranty, the knowledge that a UK company offers support/information and you are buying a modem with quality (Rockwell based) components.

K56Flex modems need to connect to another K56Flex modem in order to use 56K technology (make sure your provider supports K56Flex technology). Call for further technical details.



£79.95

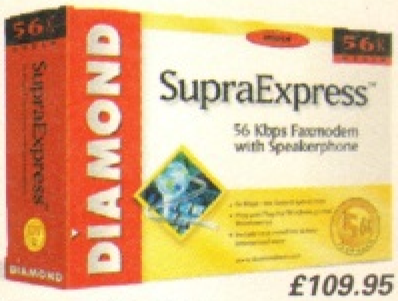
33.6k External Data/Fax/Voice

- Quality branded Dynalink or Supra modem
- 33600 bps DATA/FAX/VOICE modem - true v34. Throughput to 115,200 (230,400 for K56Flex) BPS via V.42 bis data compression
- Group 1, 2 & 3 send/receive FAX (14.4)
- Voice Commands - DSVD upgradeable (by software)
- V.80 (video conferencing) capable
- Call Discrimination
- Fax on demand
- Caller ID and Distinctive Ring enabled
- Simultaneous voice and data (S.V.D.)
- Speakerphone for hands-free operation
- Upgradable ROM chip
- Includes headphones/microphones - for voice control
- 5 year warranty
- Serial cable included

56k External Data/Fax/Voice

Specs. as the 33.6k external with some general information:

The top of the range Dynalink 56Flex makes sophisticated communications more affordable and easier to use than ever before. With full-duplex speakerphone, voice mail and free head/microphones you can now use a single phone line for all your communications - voice, fax, and file transfer. The main advantage of a K56Flex modem is crystal clear voice recording (via STFax Pro), faster downloads (making the Internet work faster for you) and the latest comms technology.



£109.95



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- 56/64/112/128 Kbps connections
- Voice/data on both B-channels
- Caller ID enabled (where available)
- AutoISDN® application
- Analog Support: Rings up to 3 telephones
- User-assigned distinctive ringing
- Multilink-PPP
- Flex Channel Bandwidth-on-demand
- PAP/CHAP authentication

External ISDN

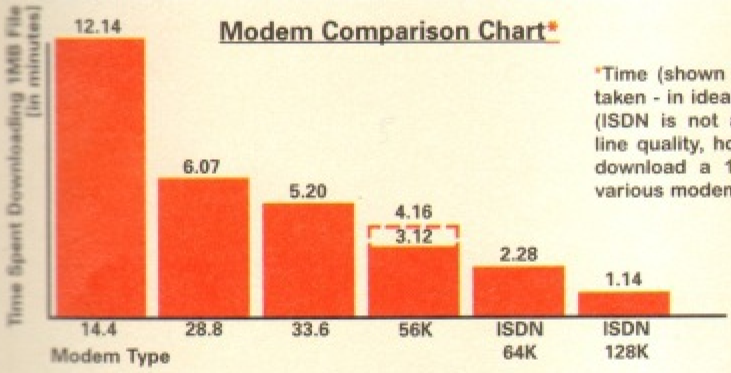
Tired of waiting for your modem to download a favourite Web page or retrieve large files? Imagine surfing the Net at a rock solid digital 128,000 bps connection with a Dynalink ISDN terminal adaptor, or nearly five times the speed of a 33.6 Kbps analogue modem. With an analogue port to ring standard telephones, fax machines or modems, the Dynalink ISDN has been designed to be the easiest and most cost-effective route to high-speed access to the Internet and remote LANs.

ISDN works on your standard Amiga in conjunction with a Hypercom or other high-speed serial card and Genesis, NetConnect or Miami. You also need an ISDN line installed to use an ISDN adaptor. **Please note:** ISDN adaptors cannot be used directly as fax machines, you would need a cheap analogue modem to handle this (which connects to the ISDN TA).

Choosing Your Modem

The graph below should help you choose the modem for your needs. For the price, a 33.6K modem is best value for money as a serial card is not absolutely necessary. A 56K modem is a good option for those wanting maximum speed but have a limited budget (the red bar shows the maximum connection speed - as most '56K' modems connect around 44-48K the extended bar shows the 'realistic' connection). You need a serial card with a 56K modem. For the true 'net surfer, ISDN is the ultimate option - solid 64/128K connections, constant speeds but higher running costs. Note that transfer rates with analogue modems can vary depending on factors such as line quality. Call for further information!

Modem Comparison Chart*



*Time (shown in minutes) taken - in ideal conditions (ISDN is not affected by line quality, however) - to download a 1MB file by various modems.

Various Modem Pack Options

Various money saving packs are available. These are all based on either the 33.6k, 56k or ISDN modem plus a a collection of extras. Call us for other pack options if you have your own pack idea!

CODE	PACK CONTENTS	PRICES £
PK01	33.6 Modem & STFax	£ 89.95
PK02	33.6 Modem & NetConnect	£109.95
PK03	33.6 Modem & NetConnect & STFax	£119.95
PK04	33.6 Modem & NetConnect & Hypercom1 & STFax	£149.95
PK05	33.6 Modem & NetConnect & Hypercom3Z & STFax	£159.95

ADD £25 for a 56k Modem (instead of the 33.6k model)
ADD £55 for an ISDN Modem (instead of the 33.6k model)

- All packs come with one month free connection to a major Internet Service Provider
- Other options may be available - call
- Choose between the CD or Floppy disk version of NetConnect with your modem pack
- STFax Professional will be despatched on release

The Net on Speed



High speed 56K modems have arrived and the cost of ISDN has fallen. We take a look at surfing the Net at unparalleled speed and unveil a new free Net trial.

In the last few years the Internet has moved from being the domain of the rocket scientist to a tool for the masses. It's now common belief that every company must have a web site and if you can't E-mail them, they clearly aren't a mordern happening company. CU Amiga has run two main Internet deals specifically for Amiga owners, the first with InternetFCI and the second with Wirenet. We've also ramped up our Net coverage and implemented the comprehensive CU Online to match the ever growing number of Amiga users on the Net.

The latest and greatest thing to arrive in this area are the new high speed 56K modems. Probably because of this fact, telecoms operators have taken a fresh look at the ludicrous charging structures for an older, yet faster, technology. That technology is Integrated Subscriber Digital Network (ISDN) and the bottom line is that it's still much faster than modems and it's cheaper than ever. As a tribute to the thousands of die hard Amiga Net heads who bombard us with E-mail every day, CU Amiga takes a look at 56K modems and ISDN.

When using a standard telephone line, your telecoms operator is essentially using an 8bit sampler each way and an 8bit sample player. The sampling rate used is 8Khz which gives rise to the nasty sound quality. A Modem turns data to and from your Amiga into sound which goes through this process of being sampled, turned into digital information, turned back into analogue and the modem at the other end turning it into digital again. It's complex and it's really quite unnecessary.

All an ISDN line is, is a telephone line minus the analogue to digital and digital to analogue. So it's amazing that the telecoms operators charge so much more for installation and rental though thankfully it's lower now. The ISDN equivalent of a modem is a 'terminal adaptor' or TA for short. This just interfaces the 64kbps stream to your computer and also looks after buffering, data compression and the MultiPPP protocol if you want to combine both channels.

ISDN comes as standard with two 'B' channels which have a 64kbps capacity each. If you really want the ultimate in domestic Internet connection, it's possible to combine the two with the MultiPPP protocol and have a single 128kbps connection to your Internet Service Provider. I find it more practical to use 64k only and stay on for longer since many tasks can be done at the same time and it ends up more efficient over time. ISDN has several more differences also, the main being that when a connection is requested to a telephone number, there is no dialling and no modem rate negotiation. There isn't even a log in procedure to enter username and password.

Connection is virtually instant because

ISDN service table

START UP	
Min contact:	2 years
Connection:	£233.83
Rental Qtr/Yr:	£157.16 / £628.63
Call Allowance:	£123.38
Cost Per Year: *	£559.25
Cost First Year: **	£739.08
Note: After 2 years, call allowance increases to £270.25	
FAST START	
Min contact:	1 year
Connection:	£587.50
Rental Qtr/Yr:	£157.16 / £628.63
Call Allowance:	£417.13
Cost Per Year: *	£211.50
Cost First Year: **	£779
Note: After a year, call allowance reduces to £270.25	
LOW START	
Min contact:	1 year
Connection:	£470.00
Rental Qtr/Yr:	£103.40 / £413.60
Call Allowance:	N/A
Cost Per Year: *	£321.88
Cost First Year: **	£883.60
Note: After a year, joining Standard Rental is possible. £628 rental, £270 call allowance, £358 Cost Per Year.	

* assuming you use all of the call allowance.
** Installation and rental only
(These prices all include VAT)

the call is routed in milliseconds, the 64K ISDN is instantly detected by the ISPs modems and the PAP/CHAP username and password system is used rather than a script for a BBS style login.

What does one need to get ISDN for the Amiga? Firstly, a normal telephone line isn't adequate, so you need to get an ISDN line installed. This done, you'll have a box on the wall with an ISDN jack on it. Next you need an ISDN Terminal Adaptor. Naturally for the Amiga, we'll be wanting an external one. They're generally the best anyway. Then we need some form of high speed serial device on the Amiga to do the ISDN TA justice. The internal serial port is stressed on the 56K modems, let alone ISDN! Finally, we'll need an Internet Services Provider (ISP) that supports ISDN dial in.

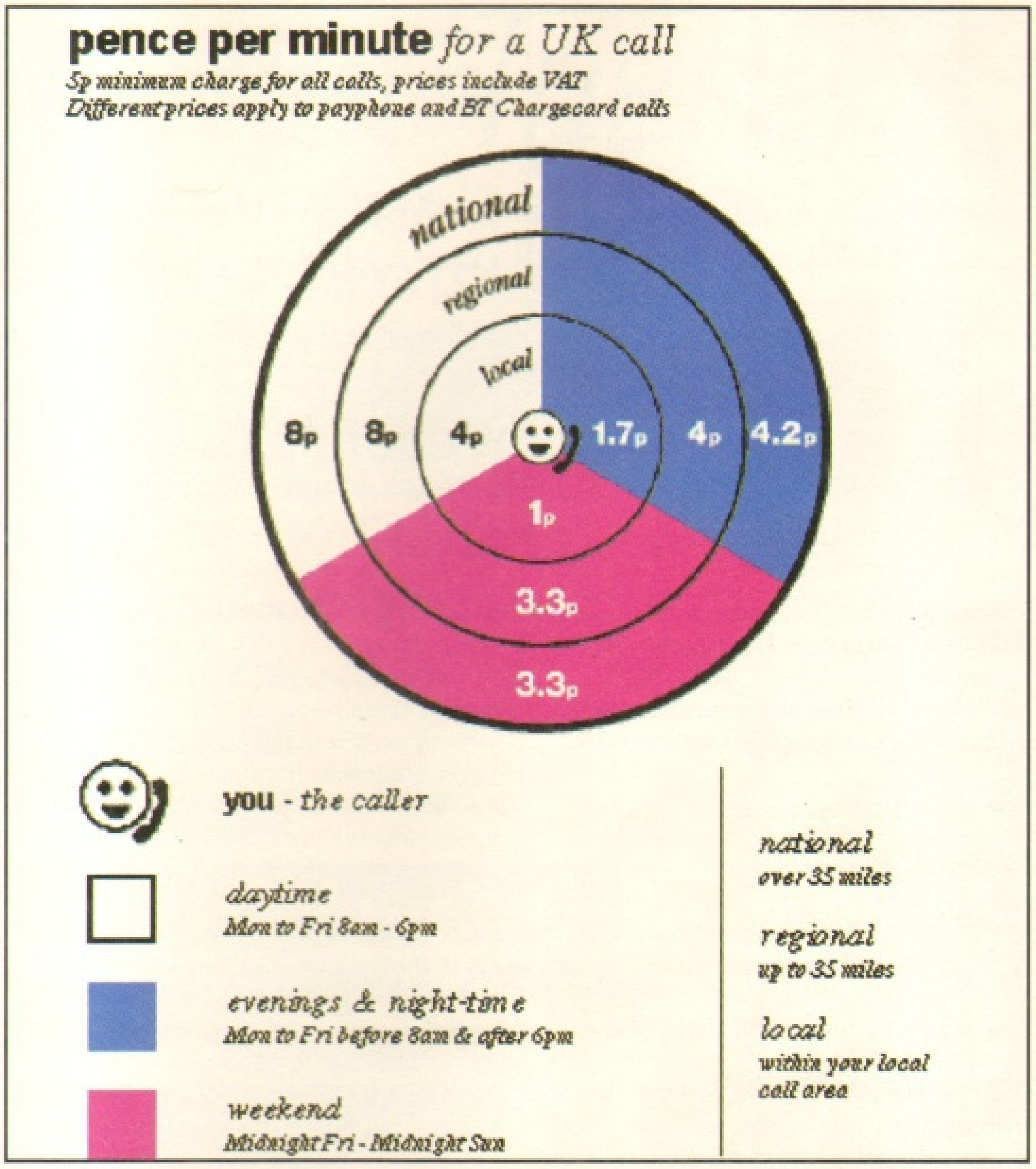
There's no doubt that ISDN is more costly and a little more complex. It's not one for the casual web browser. However if you, like me, spend whole evenings web browsing, downloading or even intend to network a few machines up to the same connection, ISDN is just the ticket. It's fast, it's reliable and it's the next greatest Net status symbol after your own domain.

ISDN experience with BT

It seems BT are paranoid about not making enough money (I would have thought £100 a second profit isn't bad) so there are numerous factors to influence which package is best for you, if any at all. If you take a look at the BT ISDN table, no matter which service you choose, you can expect to pay between 700 and 800 pounds in the first year before call costs. Holy cow, it's not cheap.

Start Up is the most common with the lowest installation charge. However the high yearly rental and a minimum 2 year contract can be hard to swallow. It's still the cheapest overall for the first year cost. Low Start can be attractive for the 1 year minimum contract and low rental. It requires an initial outlay twice as much as Start Up. Either way, it looks like BT isn't short of a bob or two.

If you do have a cable operator in your area, give them a call and find out what they charge for an ISDN service suitably armed with BTs as a comparison. We didn't find anyone at Cable and Wireless – who much of the UK cable franchises – and Mercury, who would be helpful at all in providing ISDN pricing. BT offer incentives for ISDN from time to time. You'd be well advised calling BT's ISDN hotline to check and see if there's a current scheme (one was about to expire as we went to press) and ask any other ISDN questions you may have. BT's ISDN hotline is 0800 181 514



◀ BT's telephone pricing structure at a glance. Use this table and then apply the discount schemes mentioned elsewhere for the actual cost.

ISPs supporting ISDN, K56Flex and X2

Net Provider	Phone	X2	K56	ISDN 64K	ISDN 128K
Wirenet/U-net	01925-496482	Yes	Yes	Yes	Yes ***
Demon	0181-3711000	No *	No *	Yes	No
Enterprise	01624-677666	No *	No *	Yes	Yes
UKOnline	01749-333333	No *	No **	Yes	Yes
Pipex	0500-474739	Yes	No	No	No
Virgin	0500-558800	Yes	No	Yes	No

*** These ISPs claim to be waiting for the official 56K standard to emerge, despite the fact that existing X2 and K56 ISP modems are upgradable to the standard.**

**** Support was claimed to be coming soon**

***** There is a charge for using 128K ISDN**

Note that several of the ISPs are refusing to commit to offer X2 or K56. It's worth noting that we are yet to see an X2/K56 modem manufacturer who does not claim their modem will be upgradable to the official standard when it arrives. However, it would be a very good idea to ask how this is accomplished. IE flash ROM upgrade, return to base, chip change etc.

The Final Cost

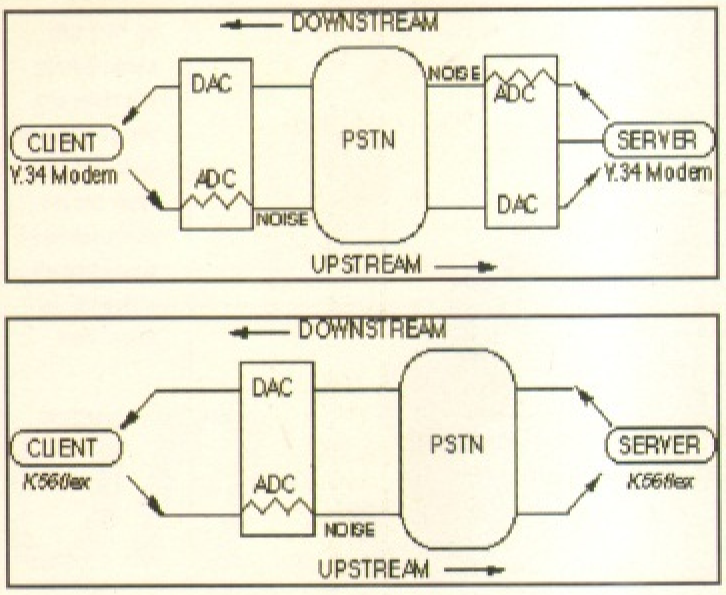
Discount schemes:

BT used to keep its discount schemes a secret until the competition hotted up. There are two types of service, business and residential.

For some reason, BT refuse to acknowledge that an ISDN can be residential so an ISDN service is classified as business. Your standard telephone at home will be residential. It's supremely important to be aware and generally to sign up to the discount schemes to save money on call charges.

Residential:

The greatest BT discount scheme which is still under utilised by Net users, is the so-called Premier Line. £28.20 per year gets you a global 15% off all calls. Virtually any-



▲ On the top is a basic diagram of a V.34 33600 baud modem. The data each way must be turned into noise with an Analog to Digital converter and thus loses speed in the complex conversion.
On the bottom we have K56Flex which allows straight through communication from the server to the client. The result is a higher download speed.

one falls into a usage category where Premier Line pays off. You also get Talking Points for your phone bill which can be exchanged for Air Miles. Friends and Family is free so everyone simply *must* sign up. This gives a 10% discount on 10 nominated numbers. So with both schemes in place, the discount is 25% off local calls which is identical to Business discounts.

The difference is Business discounts get a substantially higher discount on national and international calls, and there's a charge for the Friends and Family equivalent. Still, on the weekend, calls cost 45p per hour online with both discount schemes. Pretty good actually.

Business:
The Business equivalent of the Premier Line is called Business Choices. It comes in 5 tiers for ever increasing bills, normal home usage will really only be interested in Business Choices 1. For a charge of £5.88 per quarter, you get 20% off local calls and 27% off Regional, national and International calls. This is actually quite impressive compared to Premier Line as it reduces the cost of a Net call on weekends to 48p per hour.

However the Business equivalent to Friends and Family is a little less impressive. Key Numbers costs a once off fee of £10 and gives a saving of 5% on 10 nominated numbers. Naturally one of those will be your ISP number. This is on top of the 20% discount for Business Choices so the net saving is 25% so that an hour on the weekend will cost 45 pence. Not bad.

Conclusion

While I doubt that anyone would argue that BT aren't being greedy with their ISDN connection and rental charges, the on line charges for ISDN and regular telephone lines is lower than it's ever been. 45 pence per hour isn't a lot to pay for an hour on the Internet on the weekend. A normal modem service with a couple of hours a weekend of use is only going to cost £3.60.

If half your money goes to the ISP account, and half to phone costs;

£10 per month for ISP account

£10 per month BT charges = 1.75 hours during the week (off peak) and 2.75 hours on the weekend per week.

£20 per month gives 4 and a half hours of Internet access per week. This is really incredibly good value for what you get. It works out, inclusive of VAT, that a pint of beer in a pub costs the same as 4 hours of Net access.

Buying X2 or K56 Flex

When considering a 56K modem, it's important to check which ISPs support the standard of modem you are considering. Virtually all ISPs support ISDN at least with single channel as it's a standard feature of the modem racks they use. All of these ISPs feature free web space but only Wirenet and UKOnline offer official Amiga support. Virgin in particular will need to be harrassed into releasing the details to set up manually rather than using their PC software.

The latest 56K modems are finally seeing analogue modems pushed to the limits of what's possible. To get higher rates than 33600bps, these new modems exploit the fact that the signals are travelling along digital lines from the exchange to the home. This way they attempt to encode data in sync with the 8K sampling rate that the telephone system uses.

The result is that these modems can acheive higher download rates than the 33600bps maximum of standard modems. The rates achieved vary greatly according to the quality of the line but they very rarely approach the 56K rates the modems are sold as. However, any improvement is a welcome improvement and the 40-46K typical 'connects' are noticably faster than 33K6 modems. The greatest problem at the moment is that there are two conflicting standards.

One is US Robotic's X2 and the other is Rockwell/Lucent's K56Flex. The latter is gaining popularity in the UK and there are several brands of modems supporting it where as only US Robotic modems support X2. Performance wise, we've tested both and found that they perform differently on different lines, with K56 being faster on one line and X2 on another so there's little between them.

The future pitfall is that both proprietry standards will be obsolete when the official standard is announced early next year. Most 56K modems are shipped with flash ROM upgrades so that they can be reprogrammed to support the new standard. The problem arises when there's no direct Amiga support, which is the case with all of them that we are aware of. A PC needs to be used to upgrade the modem so it's worth checking if you can send your modem back for a return-to-base upgrade and what, if any, charges will result.

ISDN, Modems, the future

The choice between installing ISDN or using a 56K modem isn't such a difficult one.

Because of the very high price differential, you'd have to be mad about your Internet connection to consider ISDN over a standard modem. That said, ISDN is normally 50% quicker than 56K modems for download – nearly twice as fast for uploads. It also has the capability of moving to 128K dual-channel for seriously fast speeds.

Neither of these systems is ideal, however. Many of us would like a permanent none time-limited connection at faster rates still. In these terms the holy grail is the Cable Modem. Connected to the cable telephone network, these provided near Ethernet speeds 24-hours a day.

At the precise moment these are being trialed at various cable companies in the UK, as usual a long way behind the wide spread availability in the US and mainland Europe. In the case of Cable Modems and ISDN, the thing that you should do is call your local cable operator and find out if they supply these services.

The next 'big thing' on the horizon is the provision of Internet connectivity through electrical sockets. It might sound crazy but some electrity providers and Internet Service Providers are taking this very seriously. Since every home has electrical wiring, research is nearing completion of modulating Internet data onto the power lines. This avoids the necessity of having a cable company serviced area or using conventional pay-by-time telephone services.

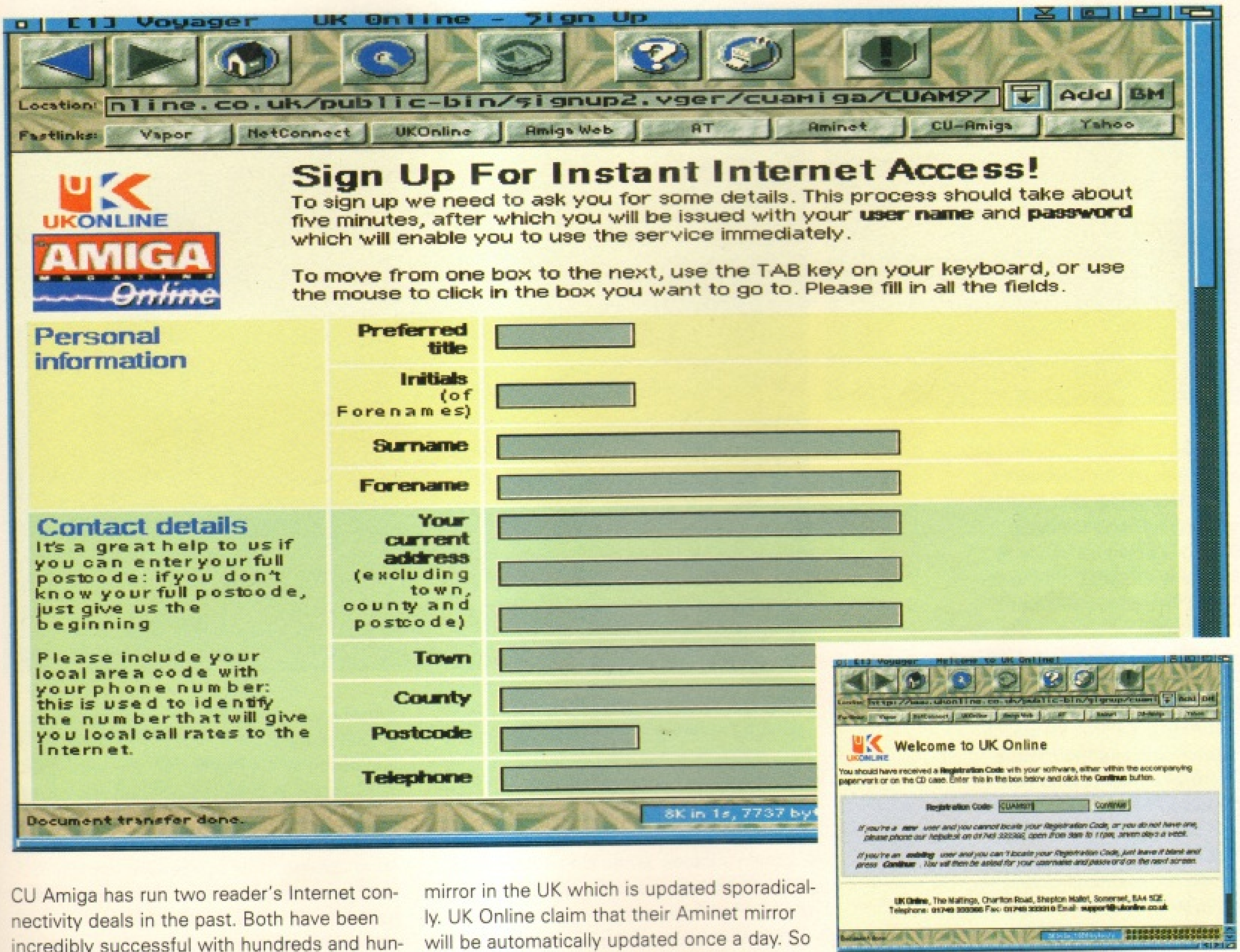
The result is similar to cable modem except one doesn't need cable to the home to use it. In the short term Cable modems are likely to be the next technology readily available with the 'electric internet' following much later. Let's hope some of these next generation Internet connectivity options arrives sooner rather than later. ■

Mat Bettinson

As BT's largest competitor Mercury was bought by the telecom giant Cable and Wireless, things look set to change in the UK telecoms scene. No-one could miss Cable and Wireless' huge advertising campaign drawing attention to their nationwide survey. It's vital that we try and make Cable and Wireless understand how much we want Cable Modems. Since a great many of the cable franchises in the UK fall under Cable and Wireless they would be an ideal target for feedback of this nature. Consider taking time to fill out their survey at http://www.cwplc.com/question/ don't forget to mention Cable modems and free local calls!

Free Internet Trial UK

We've run Internet connection offers before but this time we have a free trial that won't cost you a penny. Try it out!



CU Amiga has run two reader's Internet connectivity deals in the past. Both have been incredibly successful with hundreds and hundreds of Amiga users signing up to get Netted. This month we've concluded a deal with UK Online to offer a month *free trial* in addition to the free NetConnect Lite software on the cover CD.

UK Online tell us they have just started supporting the Amiga to the 'hilt'. NetConnect Lite – a 100 day, one hour session version of the full NetConnect CU Amiga superstar rated package is available for free. UK Online subscribers are able to take advantage of a special upgrade price to the full version of NetConnect for the special price of £39.95, a saving of £15.

In addition to normal Internet services such as the World Wide Web, E-mail and so on, UK Online will be mirroring some of the most important Amiga sites in the world. The first two of these sites are Amiga Web Directory and the Vaporware support site (much of the NetConnect software). In the longer term a full Aminet mirror will be in place. There is currently only one Aminet mirror in the UK which is updated sporadically. UK Online claim that their Aminet mirror will be automatically updated once a day. So all the latest Aminet files will appear quickly with highspeed local download rates. That is extremely good news for Amiga Net users in the UK and demonstrates UK Online's commitment to Amiga support.

After installing NetConnect and running for the first time, you will need to enter your login name and password. To activate a trial account, fill these in as...

```
Login Name:        signup

Password:          signup
```

Leave the rest of the boxes on this screen blank.

When installation has finished you need to start up the Internet connection using the Start/Stop icon in the Internet Dock. Then you need to fire up Voyager using the WWW icon. At this point you need to type

http://www.ukonline.co.uk/public-bin/signup/cuamiga where it says Location just below the navigation buttons.

Fill in the form you find there. The first thing this form will ask you for is your Registration Code, this is CUAM97 (all caps). Please note that you will not have to supply a credit card number or such like. After the form has been filled in you will receive your own login name, password and E-mail address – write all these down! Close down Voyager and disconnect from the Internet using the Start/Stop button that's in the Internet Dock.

Start up the AmiTCPPrefs program. Go to the user section and fill in the Login Name, Password and E-mail Address with the details you just received. Enter your name into the Real Name box and click on Save.

You're now ready to go and use your trial account for the next 30 days. You'll also receive a letter and an E-mail telling you how to continue using the service if you like what you see.

Freeware Round-up

We round up some of the best freeware in recent months and ask why the authors chose not to charge for this fabulous software.



NewIcons 4



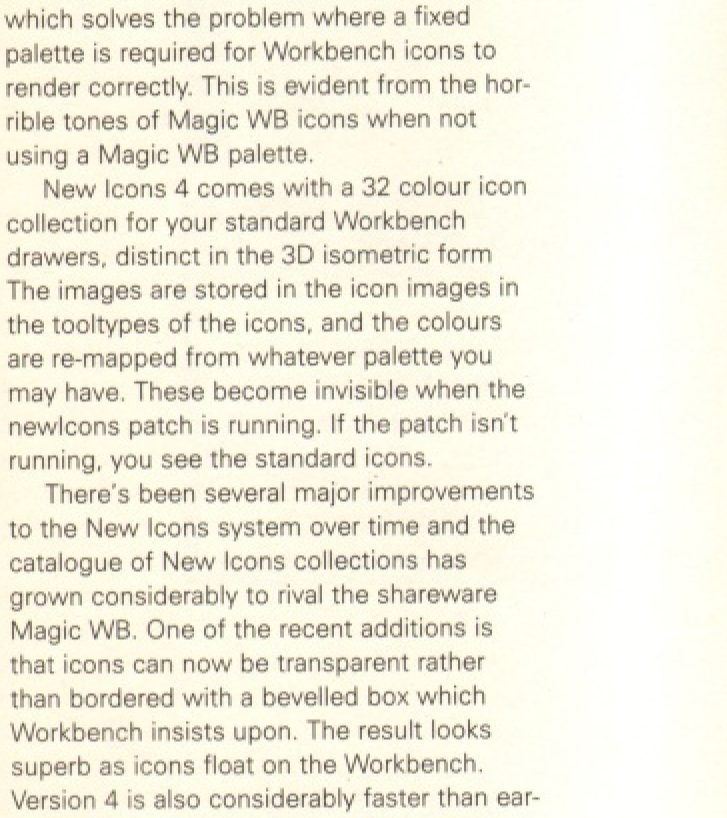
New Icons 4

Rather than just an icon set for Workbench, NewIcons is a completely new icon system which solves the problem where a fixed palette is required for Workbench icons to render correctly. This is evident from the horrible tones of Magic WB icons when not using a Magic WB palette.

New Icons 4 comes with a 32 colour icon collection for your standard Workbench drawers, distinct in the 3D isometric form The images are stored in the icon images in the tooltypes of the icons, and the colours are re-mapped from whatever palette you may have. These become invisible when the newIcons patch is running. If the patch isn't running, you see the standard icons.

There's been several major improvements to the New Icons system over time and the catalogue of New Icons collections has grown considerably to rival the shareware Magic WB. One of the recent additions is that icons can now be transparent rather than bordered with a bevelled box which Workbench insists upon. The result looks superb as icons float on the Workbench. Version 4 is also considerably faster than earlier versions. Even advanced Workbench replacement software like Directory Opus 5 has been quick to recognise the popularity of New Icons and now fully supports the system internally. It even allows individual turning on and off of transparent icons. We like the look of New Icons a lot at CU Amiga and it's been adopted as the Icon standard for CUCDs although Icongraphics is still used for the standard icon set.

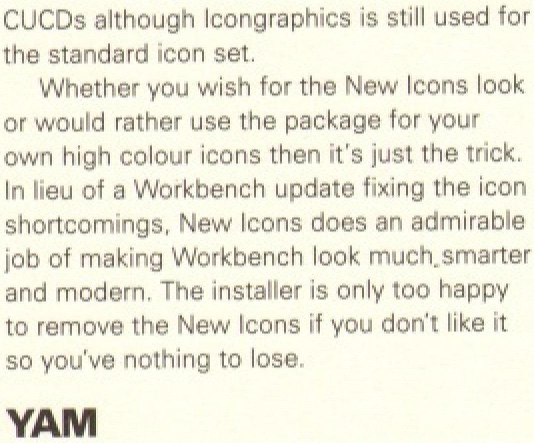
Whether you wish for the New Icons look or would rather use the package for your own high colour icons then it's just the trick. In lieu of a Workbench update fixing the icon shortcomings, New Icons does an admirable job of making Workbench look much smarter and modern. The installer is only too happy to remove the New Icons if you don't like it so you've nothing to lose.



YAM 1.4

YAM

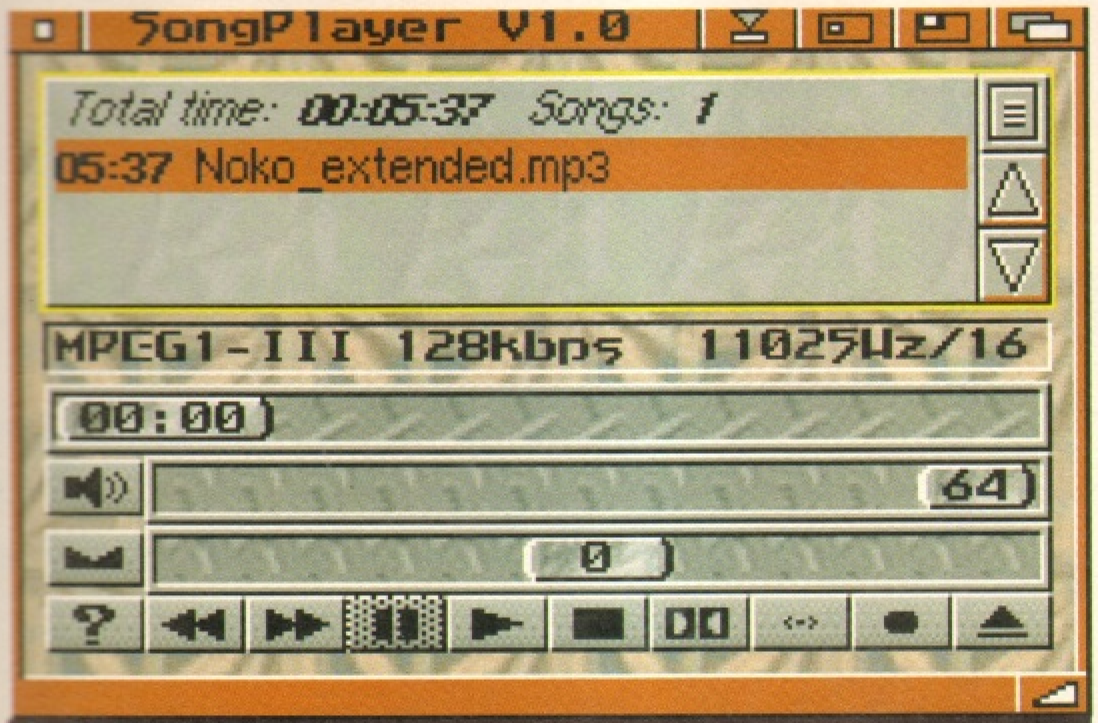
YAM has got to be the single most popular E-mail package on the Amiga. There are two simple reasons for this, firstly it's very good and secondly it's totally free. Something YAM shares in common with the rest of the software featured here.



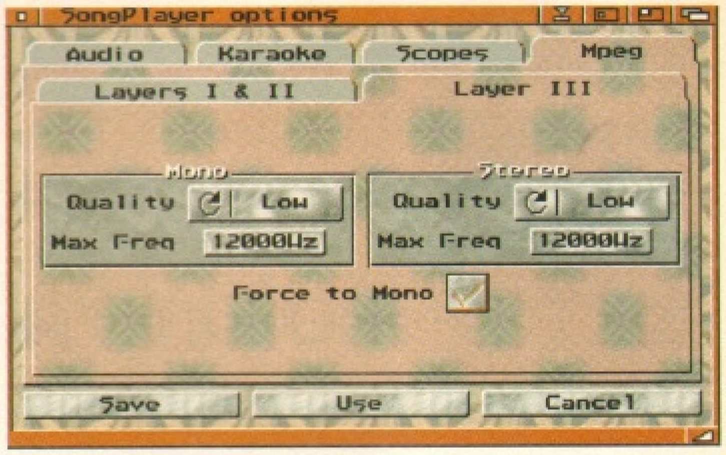
The Swiss Marcel Beck originally attempted to operate YAM as freeware but where one had to apply for a key which was free, he'd have an indication of the number of users. He was swamped with thousands upon thousands of requests to the point where he gave up and reverted to standard freeware. YAM is an all in one package based upon MUI, which has built in text editing/E-mail composition facilities, MIME and UUencode encoding and decoding for E-mail attachments and a built in POP3 client for downloading the mail from the Internet Service Provider. All that means there's nothing extra to set up, it works out of the box.

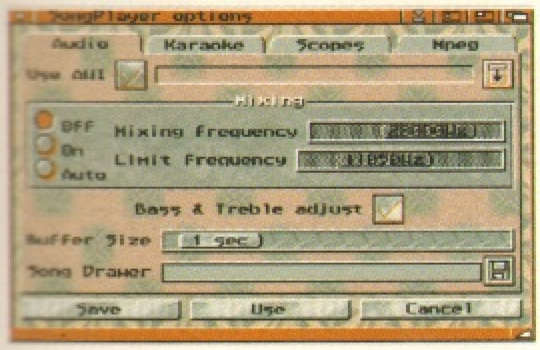
However in the tradition of excellent Amiga software, it starts off simple but gets as complex as you'd like to go. It has an extensive ARexx interface and the Aminet is littered with YAM scripts to run everything from mailing lists to downloading of files from the Aminet via AmFTP.

The standard filtering options are there so you can import mailing lists into their own folders by matching certain rules. YAM is a superb mail client but it's not perfect with some performance issues. Fortunately Marcel isn't sitting on his laurels and YAM



SongPlayer





2.0 is due to be released later this year. A fact which has a great many Amiga Internet users excited for good reason.

SongPlayer

Stephane Tavenard has been responsible for a great many "I told you so's". The Frenchman has put in serious effort at writing programs to play back MPEG audio streams. Starting with the initial so-called Layer I and Layer II types, Tavenard wrote an assembly optimised player for Delitracker capable of playing in real time. It was thought impossible that even a mighty 68060 would be capable of playing the latest format, MPEG audio Layer III. The latter took off in popularity on the PC albiet with the legally dubious practice of circulating copyright material on the Internet.

Layer III provides around 12:1 compression of CD quality audio and results in playback quality indiscernable from the original at this compression level. At lower bitrates and higher compression still, Layer III comes into its own as an FM radio quality system with massive compression for use by spooling audio over the Internet.

Tavenard's first Layer III product, MPEGA, has been constantly revised getting faster and faster each time until it consumes less than 50% CPU power on a 68060 at full CD quality output. Every time they said it couldn't get much faster. Every time we were proven wrong. Now even 030 users can play Layer III streams in mono with frequency division. SongPlayer takes the MPEGA Layer III engine and applies a fine looking MUI GUI and play facilities for uncompressed samples as well as all MPEG audio layers. The result is a program that's staggering in its efficiency, capability and quality. Hats off to Stephane for making MPEG audio possible on the Amiga with his impressive programming talent.

MCP 1.30

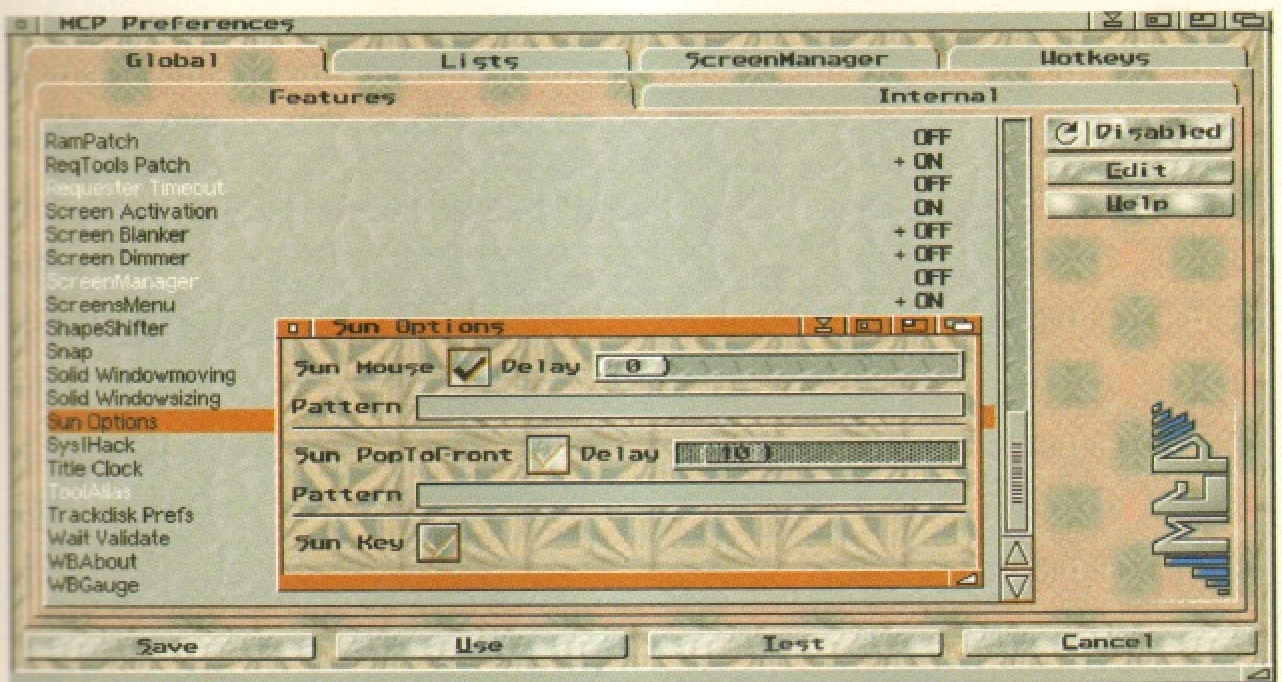
It's common for Amiga users to install Workbench enhancing patches in their startup sequence or WBStartup. The only common goal of these patches is they enhance or alter the behaviour of the Amiga's operating system. The problem is that power users tend to apply many of these until their user-startup is littered with programs.

The German duo, Stefan Sommerfeld and Michael Knoke created MCP, or Master Control Program, to this end. MCP is a massive collection of the hacks and enhancements found in most of these commodities. Fortunately, any or all of them can be activated through the use of the preferences program which runs separate to the patch itself, installed in the startup-sequence. A small selection of MCP's patches include; Alert/Guru capture and logging, CopyMemQuick, Crunch patch, DOS wildstar, font search and cache, Force NewLook menus, Format Protection, Mouse acceleration, screen blanking, Quick draw and layers patches, CPU settings, requestor patches, screen manager, solid window moving/resizing and more. Lots more in fact.

MCP even has the functionality of Assigns Manager built in so that system assigns can be managed via a GUI rather than installed into user-startup. This is much quicker when starting up. There's also hotkey managing and the excellent Tools Alias which will search for Tool Types patterns and launch your own application. All those horrible More variations with hard coded paths will load your favourite text view for example. MCP will even force certain applications to use fast memory rather than chip and time out requestors automatically. Phew.

There's no doubt, MCP is the ideal system enhancing program for your Amiga. Though it's infamous for causing problems with some software which is not surprising given the range of hacks and enhancements it offers. So with careful use and turning off of unnecessary patches, it extracts a lot out of the Amiga and it won't cost a penny. Gosh life is good. ■

Mat Bettinson



MCP Preferences

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NEC Pinwriter P2200	3.03	2.88	2.68	2.48
OKI ML182/183/192/193/195	3.17	3.02	2.82	2.62

BLACK	1off	2+	5+	10+
Panasonic KXP 1123/1124/1140	3.46	3.31	3.11	2.91
Panasonic KXP 1080/1180/90/1592	2.89	2.74	2.54	2.34
Panasonic KXP 2123/2180	4.95	4.80	4.60	4.40
Seikosha SL90/92/95	5.70	5.55	5.35	5.15
Star LC10/20/100	2.29	2.14	1.94	1.84
Star LC200	3.00	2.85	2.65	2.45
Star LC24-10/200	2.86	2.71	2.51	2.31
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Screen Scene



Yes, it's here at last! One of the most eagerly awaited games of all time - and I could be talking about the review of Champ Man2 or the massive preview of Myst here... chuck in new RPG Blade and the last few hints and cheats for TFX and you should find plenty to get on with.

Reviews

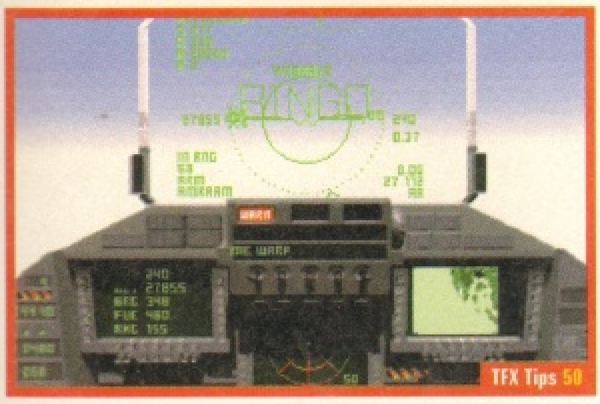
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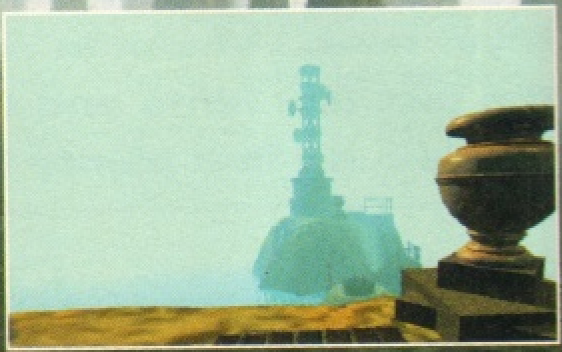


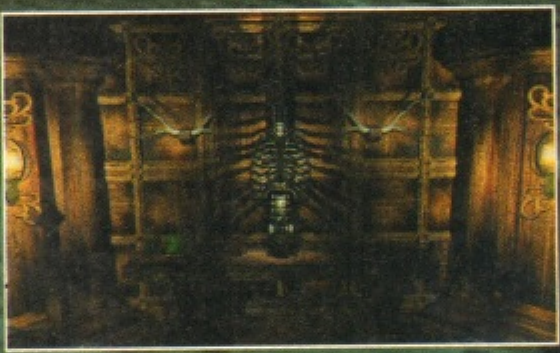
Cannon Fodder 44

Myst preview









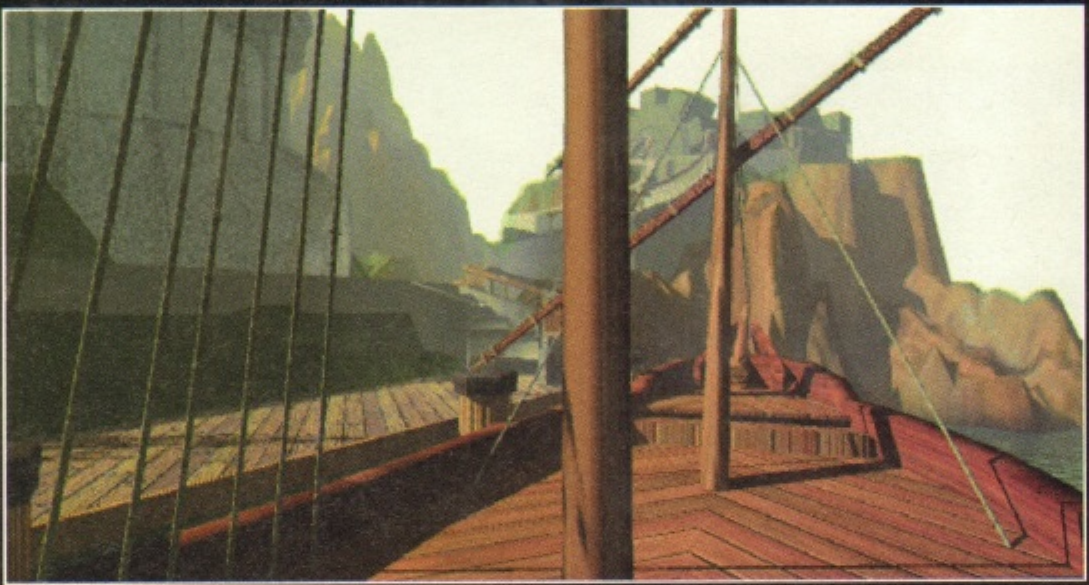
"You have just stumbled upon a most intriguing book, a book titled Myst. You have no idea where it came from, who wrote it, or how old it is. Reading through its pages provides you with only a superbly crafted description of an island world. But it's just a book, isn't it?

As you reach the end of the book, you lay your hand on a page. Suddenly your own world dissolves into blackness, replaced with the island world the pages described. Now you're here, wherever here is, with no option but to explore..."









Here is a selection of some of the 2500 beautifully rendered screens that make up Myst. using renders of the island from hundreds of viewpoints, Myst allows you to explore the whole pace.

Welcome to Myst. Mist, mystery... a world of wonder and enchantment, rising out of the fog of the unknown. Welcome to the biggest selling CD-ROM game of all time, and prepare to be amazed.

Myst is the brainchild of brothers Rand and Robyn Miller. When it was released a few years back it was something entirely new and innovative. It's an adventure game, but one which talks in pictures, not words. It's a non-linear gaming experience, controlled by an intuitive system of mouse clicks. It has obsessed adventure gamers by the thousands, and spawned an entire industry of merchandising, from books to posters to baseball caps. At last, thanks to Canadian softco ClickBOOM, Amiga users can share that experience.

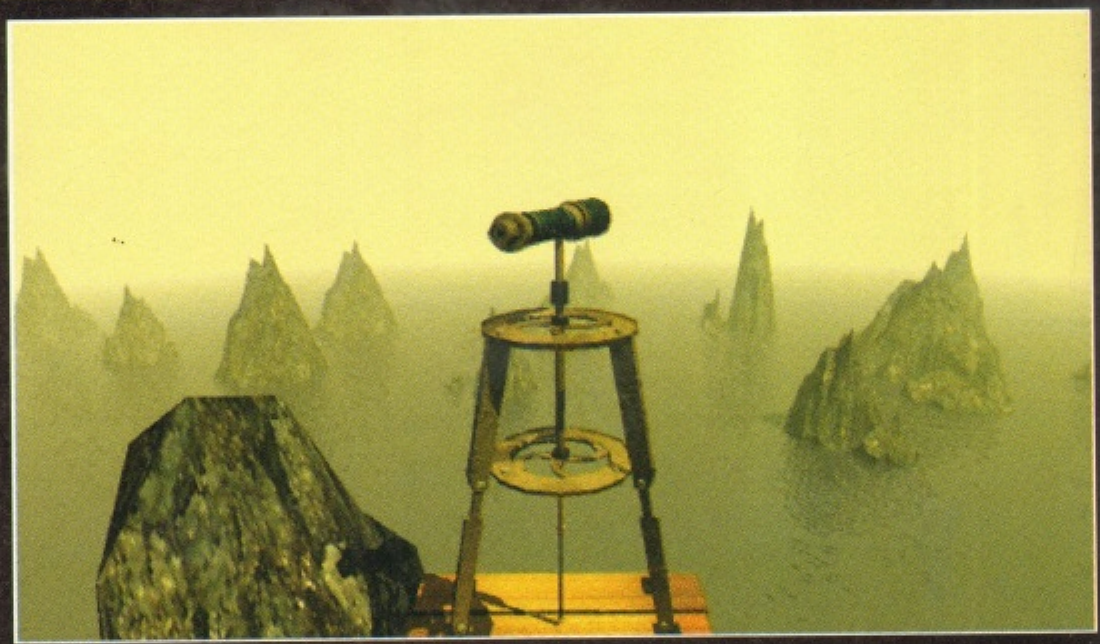
Playing the game

Myst is not a game which can be explained by telling you the plot. It isn't like that. You start the game standing at the docks of the island of Myst. Ahead of you the path leads to strange, cog like structures on the top of a hill. Beside you the mast of a sunken ship sticks out from the still, blue green water. You know nothing about the place you are in. There are no introductions or explanations, you are in at the deep end, and all you can do is wander around, explore and observe until the pieces of the puzzle fall into place. It's hard to explain the phenomenon of Myst. It is so utterly unlike the style of the Lucas Art adventure games such as Monkey Island that were so popular when Myst hit the scene that no-one was too sure what to make of it. The graphics are quite simply breathtaking. All you have to go on is the dreamlike scenery around you. You play by moving around and interacting with things you see in the images. If you want to move left, you click on the left edge of the screen, if you want to activate a lever, you click on the lever. There is no fighting and there seems, at least initially, to be very little interaction. Play it for a few minutes and you are likely to think that there isn't very much to the game that a slide show of all the pretty pictures would not provide. Play it for a couple of hours and something happens to change your mind. You become submerged in the world of Myst, intrigued by the strange places you are exploring, and eager to figure out just what the hell it's all about.

The key to the worlds of Myst are the books of Atrus. These magical tomes are in some strange way gates to other worlds, and by unlocking the secrets of the pages you can unlock those gates and, eventually, solve the secret of Myst.

Myst is unusual in that part of the game is finding out what the point of the game is. At first you are lost on the mysterious island with little notion of where you are and what you are doing there. There is a feeling that you have entered a dream, the landscape like something out of Dali via Dr Seuss. The game is filled with strange gothic buildings and bizarre machinery, part Heath Robinson and part William Morris. Art deco ironwork curves gracefully across the screen, while airships of 1920s streamline modern design wait to take you to who knows where. As





▲ I wouldn't fancy hoovering that carpet! The attention to detail is what makes Myst stand out – and attention to detail is what the game is all about. Look carefully, or you're bound to miss something!

you play it all slowly starts to make sense. It seems as if you are following in the footsteps of Atrus, finding traces of his passing and following in his earlier discoveries. Slowly but surely, the world of Myst draws you in, and it can be very hard to leave.

Myst is very much a game of observation. There are clues all over the place, hidden amongst the 2500 beautifully rendered images. If you are not careful, you are sure to miss some. The three tips everyone should know when playing Myst are take notes, play with a friend (four eyes are better than two) and, for the really dark scenes, turn up the brightness of the monitors. Myst is a very cerebral game. You don't fight in it, you don't die in it. You hit dead ends, but there is always a way out, if only you can find it.

AmiMyst

The history of the Amiga version of Myst is a somewhat convoluted one. It started a year or so ago when a purported demo of the Amiga version appeared on the Aminet. Although this turned out to be a clever fake, the interest it spawned was enough that the original programming team Cyan got wind and became interested in the notion. Publishers Sunsoft, who had released versions for a number of CD consoles, had not considered the Amiga up until then because of the relative scarcity of CD-ROM drives amongst Amiga users. Now that CD-ROM drives are so common, it makes a lot of sense. After months of negotiation, ClickBOOM, previously known for the top Amiga beat 'em up Capital Punishment, procured the license. Ever since they announced the license in March of this year, the Amiga community has been split between those who can't wait and those who aren't sure what the fuss is all about. Well, the waiting is almost over, and from what we have seen it looks like it has been worth it. The Amiga version is not just a direct conversion of the original with everything in place, it is actually better.

When the game was originally released, it used a 256 colour palette. The palette was fixed for each island, limiting the amount of different colours available for each scene. In comparison, the Amiga version uses a different palette for each screen. By using a flick screen for the menus, they retain all but the two or three colours used by the mouse pointer for the picture display. The core of the original Myst was the Quicktime animation format. For the Amiga version, ClickBOOM have developed their own custom Quicktime player which handles features such as 24-bit output on Cybergraphx dis-







◄ **Riven: Myst 2. A picture of the forthcoming follow up to Myst. According to the Sunsoft website, as well as versions for Mac, PC, Playstation etc, they are considering the possibility of an Amiga version...**

plays, simultaneous animations, QT sound playback and transparent colours, which allow the animations to play smoothly integrated with the backdrops. It also intelligently skips frames on lower horsepowered machines so that the game does not slow down and everything stays in sync with the sound even on a 68020 Amiga.

Myst will run happily on most gamers' machines. The requirement of CD-ROM drive and 8Mb RAM is pretty universal, and most gamers have an '030 processor, which is lucky as Myst looks a bit jerky on a bog standard machine. Given an '030 and AGA, the game runs well, but you'll still notice the animations skipping a little. A graphics card or a step up in processor power is necessary to run Myst at its best, and you'll probably need both to view the full screen intro animation smoothly, but that is no great loss.

And the future...

One of the best things about Myst reaching the Amiga is that it helps put the platform on a more serious footing for games. If Myst succeeds, then we can expect to see a lot more top titles heading our way. ClickBOOM have done an impressive job on Myst, and if you want more evidence of this then pop onto the Sunsoft web site.

Sales of Amiga Myst will also be a major factor in the destiny of Amiga gaming. With any luck, they should be healthy enough to encourage other such mamoth developments, not only from ClickBOOM (who are already have some more surprises up their sleeves). Our guess is that it will mark the start of a new dawn for Amiga gaming. A rebirth if you like, lead by the new school of Amiga developers keen to impress.

We live in interesting times. This month we have seen two conversions of big name titles come into the office, but oddly they represent different ends of a spectrum. One is a stray remnant of the days when everything got released on the Amiga as a matter of course (Champ Manager 2), the other marks the re-emergence of the Amiga as a game platform. We've been hearing a lot about this in the last few months and now it's starting to happen. With Myst, ClickBOOM have a very high profile entry into the Amiga games market. At a make or break time such as this it is reassuring to see solid, well respected titles, and even more so when we see them up and running and looking very good. There are still a few tweaks to go before Myst hits the shops, but the final game should be ready for review next month. Be ready for a truly mysterious adventure. ■

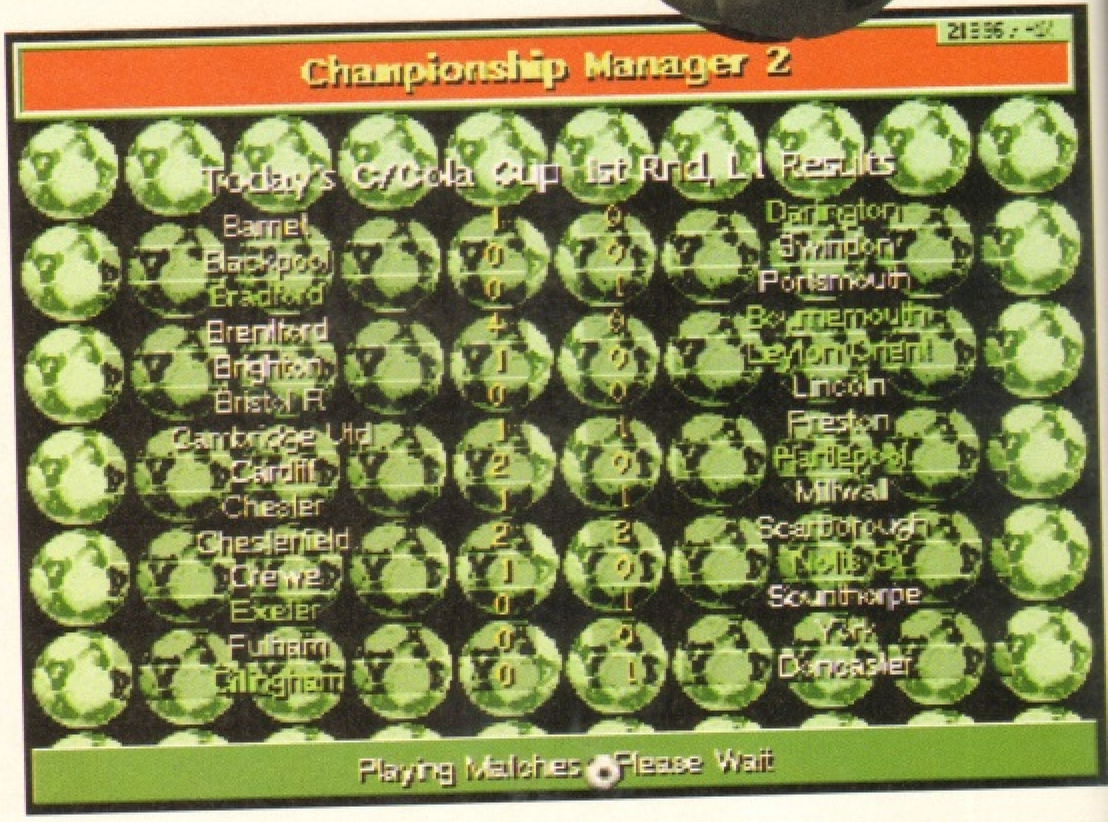
Andrew Korn

Championship Manager 2

■ Price: £29.95 ■ Publisher: Eidos Interactive ✆ 0181 636 3000

You see it advertised at football grounds around the world and, at last, you can play it on your Amiga. If you have a lot of time, that is...





When the annals of computer game history are written and the lists of long delayed games are drawn up, the Amiga version of Championship Manager 2 will be way up there with the likes of Jet Set Willy and TFX. At least two years late. With all that development time this has got to be pretty good, right?

This was always going to be a challenge. The PC version requires a Pentium to run at decent speeds and comes on CD-ROM. Even the saved games eat up an absurd 22 Mb of hard drive. How could this be made to run on an Amiga? The original code was horrendously unoptimised. Compared to Champ Man 1, it doesn't do enough more to justify the system overheads. Extract the core algorithms, redo the code in a nice compact, efficient Amiga sort of way, re-code the database structure and yipee.

Sure, it'd require a little extra RAM and would crawl as little on a vanilla A1200, but most of us have extra RAM and CPU power these days. Not everyone has a CD-ROM drive yet, but if you skipped all the extras, it could fit on a few floppies and install on your hard drive. Sorted? If only.

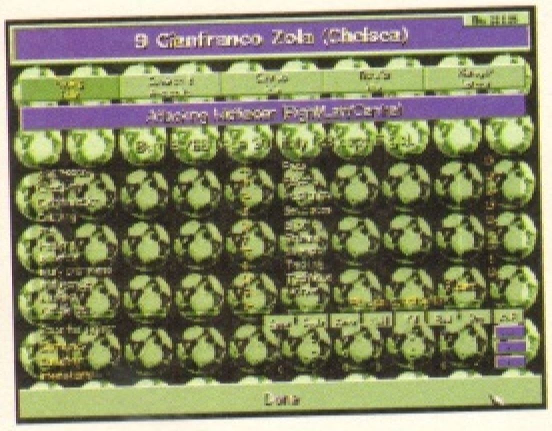
▶ **Right: Gianfranco Zola. They don't get much better than this! Below: That tactics screen in action. Petrescu runs dangerously forward...**

The Ref's blind!

Hard drives, apparently, aren't common on Amigas. As for accelerators and extra RAM, the tiny minority of users who have these add ons are surely not worth the effort. As for CD-ROMs, the CD32 died out years ago, didn't it? The gospel according to Eidos.

The result is that they asked coding house Sterling Software to write it for the most basic machines going. Ok, so it is quite nice that it will run for pretty much everyone. If the price is that it runs like a dog even on the most souped up Amiga, it isn't worth it. Therein lies the rub. Yes, it is CM2, and yes, it has almost all the features the PC version has and one or two it doesn't, but it runs far too slowly. For those of you familiar with the PC incarnation, cast your eyes to the PC vs Amiga box which explains the differences. If you are not, then here is the run down.

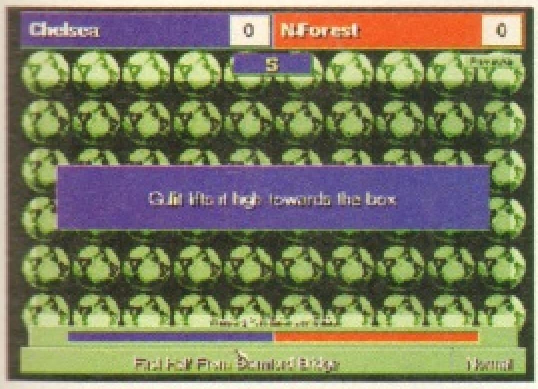




CM2 is a football management game in the classic mould. You can take charge of any football club in the land. You have to cope with the bottom line of all football clubs – success, on the pitch and in bank. You need to whip your squad of wastrels into fighting shape for the season ahead, selling the duds and buying in the stars as you go. The world goes on around you, with the four leagues, the Coca Cola cup, the FA cup and all those irritating internationals your players come back injured from all played out. Just about the only thing missing is the Auto Windshields cup, which no-one but a Shrewsbury Town fan would miss.

The principles are the same as every footie management game since Kevin Toms. Each player has statistics which specify the level of various abilities, from shooting to





▲ **Gullit throwing in the odd early cross. Little do Forest know what is about to hit them... check the bottom of the page for a half time score to make Ruudy proud...**

speed to flair. Theoretically the purpose of the stats are to allow you to get the right combination of players, but in practice they are just as important to inspiring reasoned debate along the "10 shooting for Berger? He should be at least 18! Are these people $%@£ling insane?" lines. Once your eleven players are selected, you just do your tactics and off you go to glory or defeat.

Over the moon

The implementation of each of these elements is what normally makes or breaks a footie management game, and in CM2 the implementation is excellent. The player data is if anything a little too complete, it can take a while before you have a sense of the strengths of your players. On the other hand this means that it is very in depth, and should have stat fans drooling.



The tactics screen is a model of how it should be done, with custom formations easily set up by dragging players to where on the pitch you want them and dragging bars to where you want them to run.

The player database has an excellent range of search facilities which allow you to hunt through the very sizeable lists of home countries and overseas players in any way you like. Want to search for all players called Baggio? No problem. Looking for a 15-18 year old European left sided attacker valued at less than 500k with a speed of greater than 15 and a flair of between 12 and 16 who are interested in a move? Just select the combinations and the search will be done in moments. This is the feature that CM1 most obviously lacked and CM2 does it brilliantly. The database contains some 3400 players, not only most of the league players in England but also loads of big name players from Scotland, Ireland, Wales (?) and abroad. Unfortunately the database is outdated, about right for the end of last season but don't expect to see Paolo DiCanio at Sheffield Wednesday.

Once the game is at hand, you will get to find out whether all that hard team picking and tactical trickery will work. The game runs well, with a reasonable indication of what is actually taking place. There are a couple of flaws in the routines, which means that the text concentrates heavily on cycles of promising balls in, followed by defensive clearances. There are also the rather $ corners. If you think a player crossing the ball in for himself was spectacular, you should see the headed corners, they're really special. A minor point, as there is enough in the game to keep you on the edge of your seat, and when the game ends you are presented with enough stats to keep the worst football anorak happy.

Sick as a Parrot

So where has it all gone wrong? Speed. When I said that this was a slow monkey, I didn't really drive the point home. It is slow with a capital S-L-O-W. It could be overtaken by a stuffed tortoise and would eat dust in a race with a concrete breezeblock. Calculating all the actions of all the other teams takes an absurd amount of time. Fire up your game and you'll be going a good hour and a half before you get to see your team in action.

It's not just the between game calculations which suffer. The game is full of odd little slow downs. It takes a fraction of a second to click on one of the names on your team sheet to examine their stats, but return to the team page and expect to wait as it thinks hard about nothing relevant. On the player search screen, click on a button to change a single word of text and it redraws the entire screen. The problem here is that the original code was too bloated. PCs generally have silly specs and this means programmers can get away with writing code 10 times less efficient than it could be. Actually Sterling have done an good job in certain areas. The database searches take about as long on a 14MHz '020 as they take on a 100MHz Pentium, and they've implemented virtual memory paged from the floppy drive to bolster the minimal 2Mb of the Amiga.

When we got wind of all this, we strongly recommended Eidos do something about the serious lack of support for modern spec Amigas. There has been some work on the game since, so that it now takes advantage of extra memory if you have it, but really the game needs to be tweaked and recompiled in an Amiga friendly way. In its current state, the game doesn't significantly speed up with acceleration, but with recompiling, it would actually run at Pentium like speeds on an el cheapo 68030.

What is more, it could be hard drive based. Sterling software indicated that if there's sufficient interest, they'll consider selling a patch disk which will correct all this but both Eidos and Sterling would have to be persuaded that it is worthwhile first. Check the info pages at the start of the game for more details.

It is an excellent game but unfortunately it was never going to work on a basic Amiga without a full rewrite of the code, which Eidos did not seem to want to do. Despite this it was written without taking advantage of the hardware most Amiga gamers have these days, turning a great game into one which is almost unplayable ■

Andrew Korn

PC vs Amiga

There are a number of differences between the two versions, mostly changes to reduce memory usage, but some tweaks make the Amiga version a little nicer.

Apart from the changes mentioned elsewhere in the text, other changes worth knowing about are:

No full Scottish league, no managing international sides. Player histories have been cut out, as have all the backdrops. You can no longer access the top player lists although the player search screen can simulate this. Players can be bought immediately rather than having to wait for negotiations to take place in subsequent weeks. Right mouse click selects "done" wherever the mouse is on the page, making navigation easier.



CHAMPIONSHIP MANAGER 2

Workbench version......Any	Graphics........84%
Number of disks..........2	Sound........N/A%
RAM........2Mb	Lastability........92%
Hard disk installable ...No	Playability........35%

OVERALL

If it used modern spec Amigas would score in 90s.

70%

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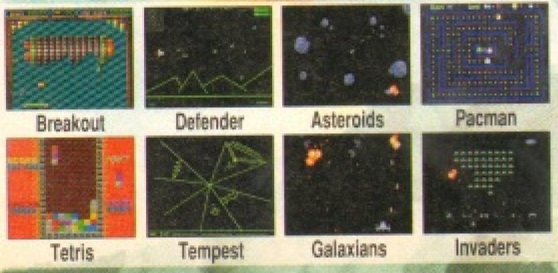
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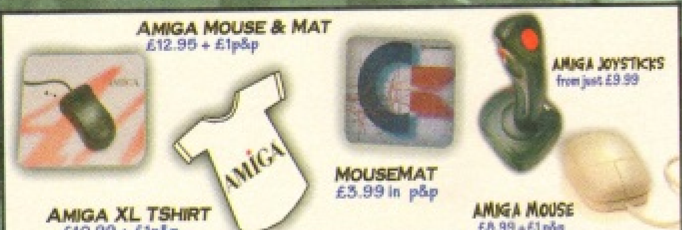


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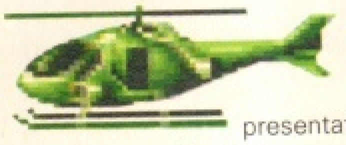
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Cannon Fodder

■ Price: £9.99 ■ Publisher: Guildhall Leisure ✆ 01302 890000

When the history of the real time strategy game is written, Cannon Fodder will have a rather unique position. In evolutionary terms, it is like the kangaroo – perfectly formed for the specific circumstances under which it flourishes – and when it's down to the bottom line, bloody absurd.

Playing the game is all about shooting soldiers and bombing huts. You lead up to four soldiers on missions which mostly amount to killing things. The mission screens are nicely drawn scrolling backdrops of desert, snow, jungle, moor and finally an underground base. Bad guys wander around shooting at you, occasionally with rocket launchers or helicopters, while you attempt to wipe them out and destroy all the barrack buildings which generate soldiers with grenades and bazookas. The game is spiced up by an assortment of vehicles which you can drive, and the occasional piece of ingenious idiocy such as exploding sheep.





War, we are assured, has never been so much fun. You can tell by the Pythonesque presentation and absurd theme tune. Black humour is definitely in order here, with a lot of cartoony Sensi style mini sprites lying around pumping blood from their dying bodies. As you progress, you gain recruits to replace those lost to the rigours of war, and are reminded graphically of those fallen sprites by the cemetery in the background with its increasing count of white crosses.

Cannon Fodder falls somewhere between Syndicate and Dune 2. It has Syndicate's small units and arcade speed gameplay, but a more Dune 2/Command and Conquer style overhead view and control fluidity.

Cannon Fodder hasn't got the tactical depth of Dune 2. There's no construction, the only development being that soldiers who survive a few missions shoot further. There isn't the satisfying destructiveness of Syndicate either. What there is makes up for it though.



▶ Stoo, AJ, Ubik and CJ get ready for the next mission while a line of eager recruits await their chance for glory.

To this day it remains a lot of fun to play. At a tenner for floppy or CD version, it's a bit of a bargain too. Right, now stop that you men, that's not sensible at all. ■

Andrew Korn

Graphics 83% Sound 84% Lastability 90% Playability 91%

■ Workbench version	Any
■ Number of disks	3 or CD
■ RAM	1 Mb
■ Hard disk installable	No

90%



Cannon Fodder 2

■ Price: £9.99 ■ Publisher: Guildhall Leisure ✆ 01302 890000

When this follow up to Cannon Fodder first came out, response was lukewarm. People thought that it was a bit of a cash in, and truth be told it doesn't exactly revolutionise the formula. On the other hand, re-released for little more than the cost of a pack of fags and two cans of low grade gutrot special export, Cannon Fodder 2 is classier in the cheap entertainment stakes.

The scenario has changed a little from CF1, even if the gameplay hasn't. The mini sprite army has quit their employment in her majesty's armed forces to become mercenaries and fight in a war on an alien planet. Their new employers need to test them so they, logically enough, hurl them through the time zones in search of a decent challenge. Hence the battlegrounds you fight in here are rather more eclectic than the original, taking in desert warfare, Chicago gangsterland, spaceships and the dark ages before your arrival in the final alien warzone.

There is certainly more variety in the graphics than the original, and the opportunities for humour are well taken, but there is unfortunately a concomitant loss of clarity. This is particularly noticeable in some of the latter stages where garish alien colour schemes can make play a little tricky.





If the colour schemes don't make you tear out your hair, the levels most likely will. CF2 has a steeper learning curve than CF1, with a couple of easy missions at the start to lull you into a false sense of security before the trickiness zooms exponentially. If you haven't got the hang of the game principle prior to this then you may never pick the game up again, so unless you're a game nutter you're better off picking up CF1 first.



◀ There's plenty of choice. Desert buildings and alien bases with Indian resaurant wallpaper on their floors.

At this low price, CF2 has a lot to recommend it. If you liked CF1 then there's no question that you should buy this. For all the minor niggles, it's still Cannon Fodder, has 72 more levels to challenge you and a lot more laughs than a day in Milton Keynes. ■

Andrew Korn

Graphics 83% Sound 84% Lastability 90% Playability 89%

■ Workbench version	Any
■ Number of disks	3
■ RAM	1 Mb
■ Hard disk installable	No

88%

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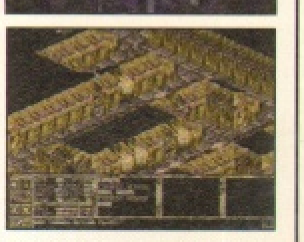
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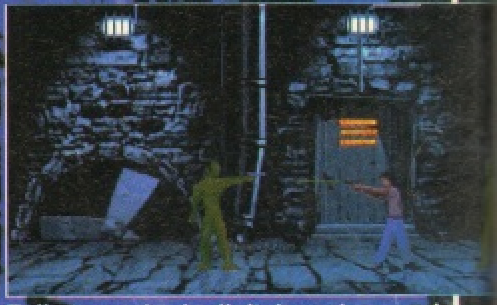
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Blade

■ **Price: £14.99** ■ **Publisher: Alive Media Soft © 01623 467579**

New software company Alive Media kick off with a budget RPG called Blade. Get ready for a dungeon bash that goes on for ever...



Strap on your broadsword, it's your job to plunge into the dungeons below to defeat the hordes of evil before they overrun the land. I'll bet you've heard *that* one before.

Turn the lights down low and be very, very quiet. We're hunting monsters. Preferably of the big and slimey variety, because those are the sort who require that you and not some other slouch defeat them. The kind that earn you gold, experience, and ultimately the respect and admiration of all of the little people whose meagre existences you've saved by your actions.

Of course, you don't have to get your hands dirty. Technology's evolved so far that you don't have to even pick up the joystick or touch the keyboard, you can do all this work with just a mouse.

Blade unsheathed

If you had to peg it in terms acronyms, Blade would be a CRPG 3D-isometric turn-based game. But you're probably looking for something more informative than that.

To break it down: Blade is a computer role-playing game, meaning it's got its roots in the swords and sorcery paper-and-dice games as well as influence from the past 15+ years of computer RPG development.

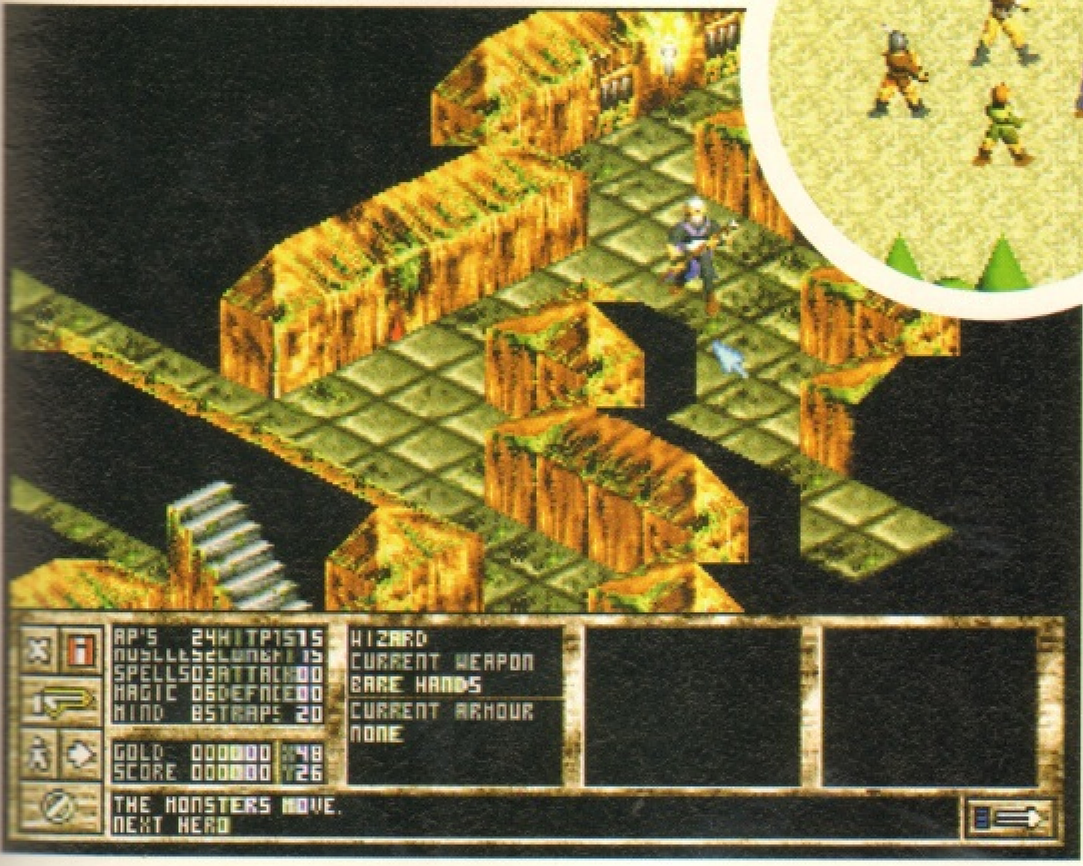
These are not a uniform group – there are some CRPGs which focus very heavily on puzzle-solving, being in the right place at the right time with the right password or map. The official SSI AD&D games are a good example. Others are more "hack and slash", with a loose set of goals and puzzles but mostly defined by killing more and more monsters to accumulate power. The Ultima series exhibits this tendency. Blade is rather more influenced by the latter group.

3D-isometric means, well, what it says, really. Most of us know the type, it's been done quite a lot on games dating all the way back to the Spectrum. The view is angled from above, not first-person. And in being turn-based, action is carried out in sequence, person to person, and each character has a certain amount of "action points" which are spent moving, turning, fighting, casting spells, and so on. In point of fact, the whole interface bears more than a passing resemblance to UFO: Enemy Unknown, although it's got far fewer things for you to worry about – the interface is very, very simple. Blade will cater to a wide variety of system configurations – best experienced on an 030 or better AGA machine with hard drive, still playable (just) from floppy on a base 1 meg A500.



▲ It takes a while, but there they are at the shop at last. Anyone got 50p for a broadsword? Mine's gone rusty.





Exploring the structure and the world of Blade is a series of pleasantly surprising simplicity when it's most appreciated (like in the interface) and head-shaking disbelief at a grossly overcomplicated issue – but more on that later.

Forming the party

It's about more than getting the beer and pretzels together. Many but not all CRPGs are based around a small group of adventurers rather than the lone quester. In Blade, you form a party of 4 characters from a pool of seven. These are, in no particular order, the Warrior, the Empath, the Elf, the Dwarf, the Wizard, the Cleric, and the Thief. Unlike most CRPGs, however, you don't get any say whatsoever in what these characters are

...and the hack

Blade is the brainchild of one Mark Sheeky, who according to the game credits was responsible for each element of the game's creation. It makes an interesting test case for those of us who feel that often the best games of all time came from a single hand. Blade...will not quite be remembered with such games. Part of doing that well is recognizing your limits, and Mr. Sheeky's 3D modeling skills (used for various art in detail and intro shots) leave something to be desired. The gameplay could have used some bolstering to give it a bit more "fullness", perhaps from a collaborator. The music, and what there is of sound effects, are however quite good.

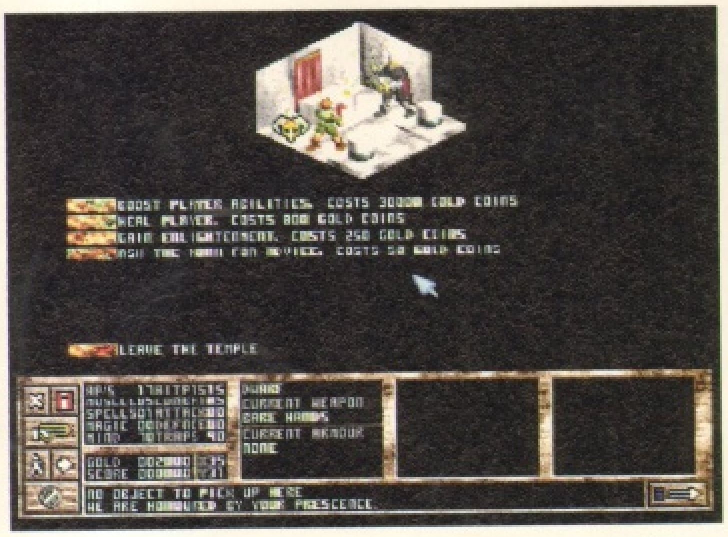
like – there are no stats to randomly generate or pick, no kit color to set, you can't even name them.

That's not such a horrible thing, actually, since that can often be tedious and off-putting to casual gamers. People with paper RPG experience usually don't mind the task of character creation, but those with shorter attention spans don't always want to take 30-90 minutes just to get ready to play a game. In this, Blade has made one of those positive time-saving innovations I told you about.

The seven characters each have distinguishing features. The most bland is the Warrior – he can fight and that's about it, although he does fight rather well. Wizards, Clerics, and Elves have spell powers (in declining order of power) and Elves gain some other abilities as well. The one interesting character type (in that it wasn't lifted straight out of Dungeons and Dragons) is the Empath, who can sense life around her – good for finding baddies or avoiding them.

Building the party of four involves trading off the abilities of the characters against one another – you can go into the dungeon with an Empath, Elf, Cleric, and Wizard and be quite a magical powerhouse, but who's going to watch their back? Forget to bring a thief and that locked door is a much bigger problem. You begin to see the issues at stake.

Now, since Blade went and saved you all that time saving you from a long drawn-out character generation, you'd think it would drop you outside the dungeon door ready to go, right? Wrong. You're actually dropped off on a rather deserted looking road in a town,

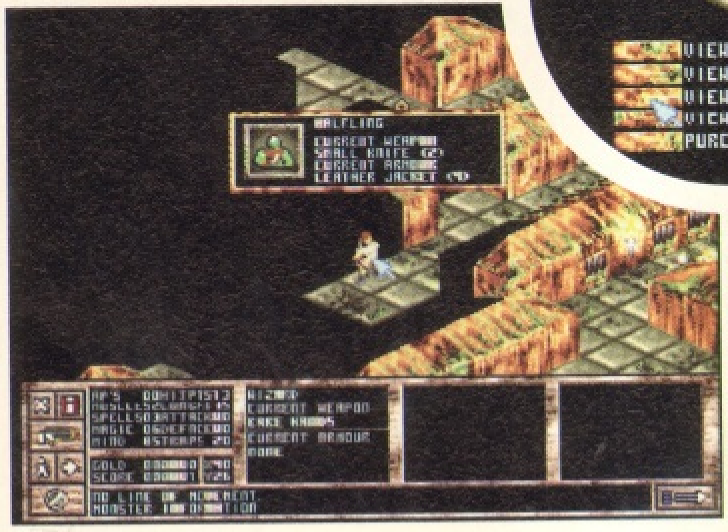




▲ **Generalised monkey monsters looking pretty confused by a wizard and his amazing invisible disappearing tricks.**







where a number of small shops stand ready to provision you for your journey to the depths. This is ok, but remember that turn-based system I told you about? Well, you have to move each character individually and it will take you several turns to reach a store.

And if you split up, you'll have to get everybody back together sooner or later. This isn't so terrible in and of itself since the game moves pretty responsively to your commands. But there are some really unnecessarily annoying issues here.

The shops are spread apart, and while your characters come with an initial endowment of gold, there's more gold scattered around the town that you should pick up so you can afford some of the better items, and so a Wizard can buy a spellbook quicker. There is an upside to going after this gold that's been laid out in plain sight – it lets you get used to the game engine without a goblin breathing down your neck. But the downside is that it takes half of forever and really should have been handled in a more efficient manner than sending you all over the place doing tedious tasks. This is one of those incomprehensible complications that make Blade a chore at times.

The slashing

Except for the shopkeepers and monks in the temple, there's no signs of life anywhere on the surface. (A few randomly moving people would have broken the monotony nicely, but no such luck.) Once you enter the dungeon, though, trouble will come looking for you pretty quickly. "You see a monster", or so the optional speech for HD owners will tell you. At the outset they're just weak monsters – but you're relatively weak heroes, too. You'll want to whomp some monsters, collect some treasure and experience, retire to the surface to cash in and heal up, head back in, and so on. The challenge gets steeper as you get more powerful, of course.

In case you were worried or concerned about it by now, the game does have a plot we alluded to at the beginning. The evil Qaal was so evil that instead of just killing him (which never works on these really evil guys) he was imprisoned in a Plot Device.

And when an earthquake broke open the Plot Device, Qaal re-emerged and brought havok and mayhem upon the land. Being the only four starting heroes with a free afternoon, you get pressed into service. Pretty standard stuff for the aforementioned monster-whomping.

Blade's interface really does work pretty well once you're in the dungeons. The map is revealed to you as you go by line of sight, and you can deploy your troops in an effective manner to put monsters out of your misery. Not everything is immediately obvious on sight, so by right-clicking on objects you can get a short description. Combat progresses much like any other turn, except that the monsters will be coming after you and inflicting damage while you wait to get your action points back. It's just a shame that once you leave the dungeon you lose your will to live.

The great balancer against quality is price. As a budget release, Blade represents pretty good entertainment value. It will win few enemies, but is not likely to start a cult or be the source of spirited debate. Being available for so many configurations, in both ECS and AGA graphics modes, it balances accessibility and technology fairly well.

If you give it the chance – more to the point, if it gets the chance – Blade really can suck you in. There's a lot of fun to monster-whomping and the speed of the interface means you won't be waiting all day to get to the punchline. Turn the lights down low and stock up for the long haul, because Blade's the sort of epic game that, if it grabs you, can move the clock from 6 pm to 6 am very, very quickly. ■

Jason Compton

BLADE

Workbench version	2+	Graphics	78%
Number of disks	4	Sound	80%
RAM	1Mb	Lastability	85%
Hard disk installable	Yes	Playability	79%

OVERALL

Hack and slash is fun, but can leave you empty.

86%

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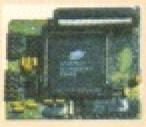
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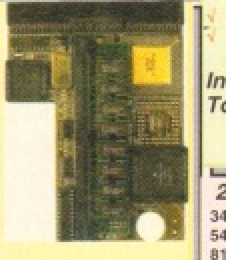
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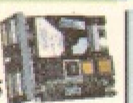
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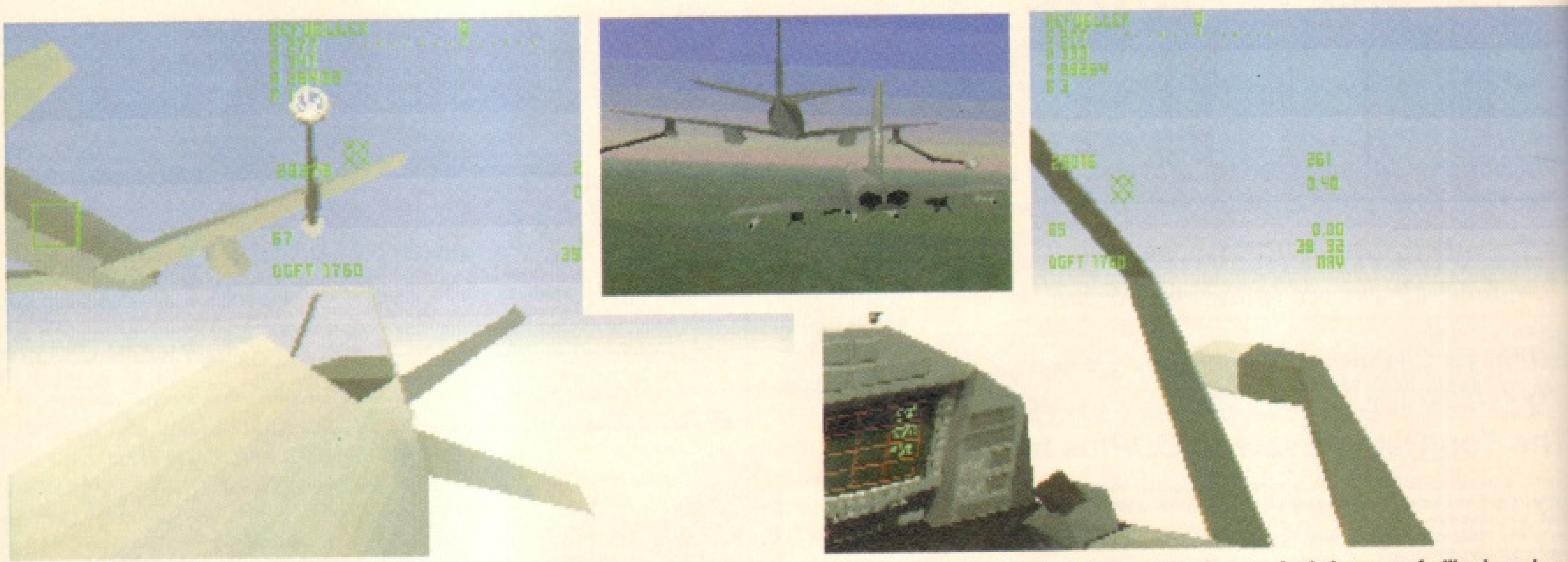
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Due to space limitations some of the specs given are indicitive only - please ring/write for further details. **Please check prices, specs and availability before ordering. If ordering by post please include a contact phone no.** Goods are not supplied on a trial basis. E&OE. All prices include VAT at 17.5%.
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TFX Tips

Back once again with some more tips for the game that just gets better the more you play it, Tips Central this month offers some advice on survival, refuelling and frankly, cheating. If you've still got any queries on TFX, send them to 'TFX Q+A' at the usual CU Amiga address.



▲ Mid-air refuelling requires you to 'dock' with a purpose-built refueller plane that patrols the skies at around 30,000 feet – a delicate operation that can go horribly wrong.

▲ You can use the virtual cockpit or exterior views to check that your refuelling boom has been extended in anticipation for the rendezvous.

Refueling

There will come a time when the tiger in your tank is exhausted and you run out of fuel. Fortunately for the forgetful, you are warned that your fuel is running low, in which case the time is nigh to refuel. You have a choice:

- Find a friendly runway and land (where you will also be re-armed)
- Find a KC Tanker (a refuelling aircraft)

Both methods are not easy and require practice, but it should be noted that loads of bonus points are on offer for refuelling in the air. A KC Tanker is always full of fuel and on standby (above the clouds if it's a cloudy day), so fly high. The tanker usually operates at a service level of 30,000 feet and at a speed of around 300 knots. When you're close enough to the KC Tanker and match its speed, it will release a fuel line, otherwise known as a 'boom'.

- Press the Del key to open your aircraft's refuel access

EF2000 Refuelling

A fuel tube is located at the front right-hand side of the aircraft (you can see it if you use a Virtual or External view). The trick is to fly so that the tube pokes into the end of the boom released from the left-hand feeding station of the KC-10 Twin Boom Tanker. When you manage this, the boom will lock into place and refuelling will automatically occur. The normal fuel feed rate is approximately 300 gallons per minute. The fuel gauge shows the quantity of available fuel.



▲ Once you've hooked up, you can relax for a while as your tanks are replenished. As you need to approach the refueller at roughly the same speed for a smooth 'dock', it's handy to turn on Timewarp mode, but it should be turned off before this point to aid final adjustment.

Underhand cheats



Here's a great cheat that lets you skip right through the training section and straight onto the real missions. At the Enrol screen, enter your first name and surname as normal. Once you've typed your nickname, hold down CRTL as you press Return for the third time. You'll advance to the screen where you select a save game slot, then onto the normal game selection screen. Now however, you'll be able to select Tour of Duty and Flash Points. Easy eh?

If that's not enough, this cheat should see you through the entire game. Whilst flying, hold down the left Shift key and type PLOP. This invokes a cheat mode making your plane invulnerable to missiles. What's more, if you crash into the ground the current mission will be regarded as accomplished and you'll be moved on to the next. Do the same to turn the cheat off again.

F-22 and F117a



The pilot of an F-22 or F-117a has an easier time refuelling. The refuel access is at the rear of the aircraft, directly behind the cockpit. The KC-135E single Boom tanker will push a probe into the back of your aircraft. All you have to do is sit tight and keep your speed, heading and altitude constant.

Emergencies

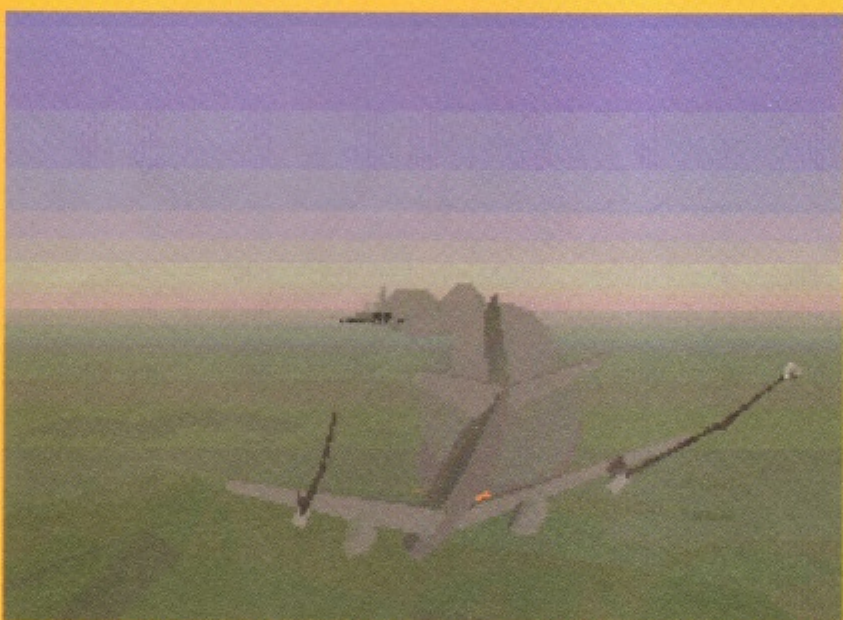
In landing, many things can go wrong. If your aircraft is already damaged, landing may be made much harder, but attempting a crash landing if possible is always preferable to ejecting and losing your aircraft. If you have engine damage, follow this procedure as best you can. You may have a much higher VSI reading and you could damage your gear, but gliding down with both engines out is possible.

Gear damage could prevent you from either retracting or lowering your undercarriage. If you can't lower the undercarriage, land without it. Try to keep the VSI very low, and deploy the brake chute (Alt-b) if you have one on touchdown, which should bring you to a halt rather more quickly. If things look bad when you hit the ground, eject.

If your wheel brakes are damaged, it will be harder to stop. Deploy the brake chute and air brakes (b). If you look like careering off the end of the runway, deploy your arrester hook (h). Every runway has arrester cables for emergency landings (not only aircraft carriers). If you can't acutally land on the runway, land near to it. You'll then be in for a rough ride, but should have a good chance.



▲ **Something has gone badly wrong here, but for a while at least it's still possible to control the plane. An emergency landing should be attempted, but if handling and mechanical failure conspire against you, hit the eject button (Escape) to save your skin.**



▲ **Oh dear. The General's not going to be happy with you is he? You've gone and rammed into the back of the refueller plane. While the refueller is quite forgiving of cack-handed pilots, there is a limit. No gold stars for this mission then.**

Tips Central



Here we have another set of cheats sent in by you lot, and over on the next page our brand new adventure guru Sjur Matheson all the way from Norway, does some expert adventure solving for us.

Populous

Here's a tasty little cheat from Eddie Van Dyke of Lincoln.

First you start conquest game as usual. Then click on the Game Setup icon. Now select custom custom game and then game options. Click on OK to get rid of the game options window, then click on evil, then 2 players and finally cancel.

If this is done correctly the enemy will be unable to alter the landscape and all of their huts will be mudhuts and wigwams

Syndicate

We recieved a totally wacky letter from Chris Lahabib from Croydon, with some tips on Syndicate.

In order to pick up cars, trains, even people and enemy agents all you do is drop a weapon, click on it again to pick it up but then quickly click on a foreign icon as the agent bends to pick up the weapon, so it's unsuccessful.

Still on 'pick-up-weapon' mode, he/she trundles off and picks up the alien icon (as long as it's stationary). Cars and trains appear as weapons, and amazingly you can now stroll elsewhere on the map and drop these weapons... Presto, the vehicle splonks back onto the ground, now shifted but facing the original direction.

You can now drive through walls, so long as you don't come to a road and you're in a now shifted car. If you never come to a road, then your car travels in and out of vision along a single straight line across the screen.



Rise of the Robots

Here's one that's easier to do than it sounds. According to the manual, it's impossible to get two Electrocorp droids to fight each other, but Kay Are Ulvestad of Norway has found a way to get both players controlling military droids. Concentrate now:

Select the two player game. When the handicap adjustment meter appears, player two moves his joystick right. When the bart goes past the sixth market from the left (counting the border markers which makes nine in all), player one moves his joystick to the left a few times (normally three or four is sufficient), while player two keeps holding his to the right.

The game should now start automatically with both players controlling the military droid. Just make sure the bar is between the sixth and seventh market all the time.



Road Rash

More excerpts from that letter from Chris Lahabib (who also claims to be suffering from 'time warp fatigue' for some unknown reason), and here he supplies a superb collection of cheats for Road Rash.

First off type in 112233 011H7 or VUKBE 27QAG as your password to get an infinite amount of money and that super-duper top notch bike that you need.

In order to win any race, you need to drive into the rough, all of the way to the right until you come to a stop at the very extreme of the play area.

Keep your control to the right and rev up to top speed. That extreme of the play area has road like qualities so that you can maintain top speed.

Trees and houses will hurtle towards you, but their icons vanish only just before they come into contact with you. The end result is that you jam the joystick to do the 'up-right' manouevre while you sit back and get the life scared out of you, eventually winning all the races.

Civilization

Here's a magnificent little cheat for Civilization sent in from a chap by the rather unusual name of Cheezy in Grimsby... hope it's not anything to do with the state of his socks!!

When you build your first colony, rename it CHARLOTTE. You'll then see a message stating 'Cheat Mode Active' and find at least 50,000 glittering gold coins in the bank. Also, as a bonus the entire world map is available to view. Get crackin' then!!

You need help

If you would like some help on any game – or you have some tips that you'd like to share with your fellow readers – then please write to us at Tips Central at the following address, remembering to mark your envelope Adventure or Arcade accordingly:
Tips Central,
CU Amiga Magazine,
37-39 Millharbour, Isle of Dogs.
London E14 9TZ.

Adventure helpline

Monkey Island 2

I'm stuck on 'Monkey Island 2', can you tell me how to win the spitting competition? On the easy game, on Inky Island, I've got to the X mark, bombed it and went down. I know you've got to make a voodoo doll of Le chuck and I got most of the ingredients but can't get something off the head and also can't open the drawers in the room with the broken down grog machine, is there a way?? Please help?

John Jordan

Winning the spitting competition is quite complicated. First you need to get a library card on Phatt's Isle. Then go to the bar on Scabb Isle, use the card as ID, and buy the yellow and blue drink. Hey you even get a suplementary crazy straw! Mix the two drinks and you end up with a green one.

Now it's time to set sail for Booty Isle and try spitting. Didn't do that well did you. Try looking at, and then moving the flags. You'll need a distraction. Try the horn on sale in the antiqueshop. Try spitting and you'll see a slight improvment. Try again and this time use the crazy straw on the green drink to get thicker spit. Still not good enough?

Try one last time, and this time look at the scarf worn by one of the spectators. Spit only when the wind blows, and you should be champion.

The Speris Legacy

Dear Helpline,

I am stuck on 'The Speris Legacy'. In the outlaws Caves, I am asked by a statue called Gorloc to find a riddle. Where is the riddle?

I can't find it anywhere!! In my inventory there is a sword, shield, bombs, dagger, shatter sword, tinder, strength potion, mallet, screwdriver, gloves, gem, shoes, ice hammer and cutters. Is there something I should have picked up earlier? I've obviously missed something but what? Please help me as I've been stuck there for almost a year!

Kerry Bromfield, Lancs



Enchantia

You need to go back to Gillihards Rhine, as you seem to have moved on a bit too quickly. I assume the shoes in your inventory are the hyper boots. Find Rupert and talk to him. Then walk right away from him until he's off screen, turn round and run him down using the hyper boots.

He'll drop a secret pass. Use this to get into the informations building, where you should find a chest containing the book of riddles but with 3 pages missing. To find them, locate some barrels, use the shatter sword to smash them, and Presto, the book is complete.

Give it to Gorloc. I would also try playing around with the switches in the The House of Mystery. Left, right, left, right, sounds like an interesting combination.

Enchantia

On curse of Enchantia I have given the fish to the eskimo in the ice lands but how do you get out and what do you with the fishing rod??

Craig License

Firstly you should make your way to the big ice cube, then try fighting the fishing pole. You've now made a fire! Let's just take a moment to add up everything.

You're standing near a big block of ice and have just made a fire. What could possibly happen next I wonder? ... One 'another creature enjoys it's freedom' later, and you should pick up the ashes and walk along the left side of the screen till you meet the Walrus.

Now I don't want to give too much away but you have to get across so, use the Walrus as a bridge, then scream for help. You never know you might just get it



Simon the Sorcerer



Big Red Adventure

Simon the sorcerer

I'm stuck on Simon the sorcerer 1. I can't seem to get the beer barrel in the pub. Please help me.

Also I tried using the matches on the beehive which is meant to work but won't. please tell me what I'm doing wrong??

Louis Shanahan

These two things are actually connected. You need to use the wax from the beehive on the barrel in order to plug it. Then the barman will think it's empty and carry it outside.

Now, here's how to get hold of the wax. You should head for the castle. Use the clapper you should have found at the blacksmith's, with the bell, and a long piece of hair will fall down. Climb up and into the window, then talk to the girl, and kiss her.

Whoops! Take the repulser back to the chocolate truffle house and let it have a little taste of the door. Once inside, take the hat and the smokebox. Use the smokebox on the beehive and there you go.

Back where we started, in the bar, ask for a drink to keep the barman occupied while you do your magic stuff.



Monkey Island 2

Big Red adventure

I'm stuck right at the start of The Big Red adventure. I have left my hotel room and picked up the rope in the foyer, but can't find a way out. It is driving me completely mad! Please help!

Dickie Dimes, Chessington

Well... You probably got up on the wrong side of bed. Go back into your room, try the bed, and get up on the side closest to the toilet this time... only joking, it takes a mastermind to figure this one out so you shouldn't feel embarrassed.

What you do, when in the foyer, (congrats on making it this far by the way) is give your key to the Porter. Then move your cursor to the bottom of the screen to get out. Did you remeber the TV-aerial by any chance?

Police Quest 2

Could you help me with a problem in Police Quest 2. I'm at the motel. I've shown my badge and the mug shot of Bains to the guy at the window, so I know what room he's in, but I'm unsure of what to do next.

Steven Fletcher, Buckinghamshire

Get back to your car and radio in a report. Then you request a warrant and call for backup. Remember 'Safety First' just like with important files on your hard disk... always make backups! Well..Enough wisdom.

Get out of the car again and wait. An officer will come along and hand you the warrant. You show it to the man at the window, and ask for the key to the room. Go there and wait for your backup to arrive. Be sure to stand at the right side of the door when you attempt to open it so as to avoid being shot. Now you wouldn't want that, would you?

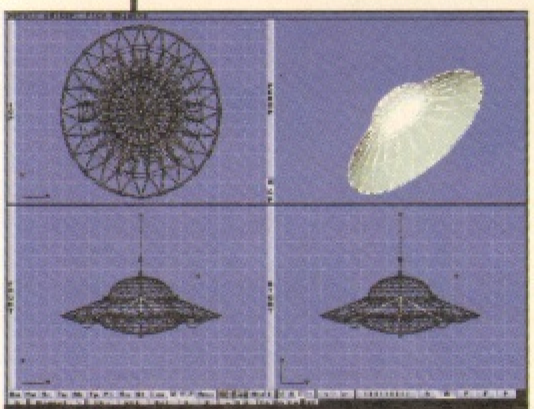
Tech Scene



What a monster collection of Amiga goodies we have this month! You'll pry my Amiga from cold dead fingers.



Scanner Special 56



Imaginex 61



HiSoft CDR kit 62



PD Scene 72

Scanners

Take a look at the new breed of cheap high performance scanners, along with some hot new software a tested by Larry Hickmott.

Once upon a time, the only choice the Amiga owner had when it came to scanning images was to either mortgage the house to buy a flatbed scanner or put up with a hand scanner, a fate worse than owning a PC for many. The only significant advantage the hand scanner ever had over its more illustrious rival was price but now, even that edge has been eroded with flatbeds costing as little as a hundred pounds.

On the Amiga however, this price advantage is compromised by available scanner drivers. Until recently, scanning software was very thin on the ground but this has recently changed for the better with the arrival of the commercial package ScanQuix 3 (reviewed over the page).

All these changes in the market mean that you can now take any printed image and use it within your own projects, whether that's standard DTP work, 3D rendering, graphic designs, web site creation or whatever. You can scan important documents for archive purposes, use your scanner as a photocopier in conjunction with your desktop printer and exploit it even further by converting text on paper to text on screen with the help of an OCR (Optical Character Recognition) program. With prices of scanners now lower than ever, you don't need much of an excuse to buy one.

Buying a flatbed scanner

The number of flatbed scanners available to computer users is mind boggling these days. With so many to choose from, the type of flatbed you buy will depend on many factors such as its resolution, available optional extras, price and most importantly, an Amiga software driver.

The first point on your check list should be an Amiga software driver. Without it, your scanner will be useless. As a general rule, scanners supported by commercial packages like ImageFX and ScanQuix should be fine. If however, you must insist on using a scanner not covered by a commercial package, try to get an idea of how good the alternative is before buying the scanner, because some non-commercial scanner drivers are barely useable.

Next there's the subject of optional extras like transparency adaptors. These are light boxes which sit on the top of scanners and allow you to scan slides. From what I have seen of these, a dedicated slide scanner is better although I don't see any support for these on the Amiga.

The third point to bear in mind is the resolution of the scanner, specified in DPI (dots per inch). Although you may have a 300dpi scanner, you may find your software only allows scanning in lower resolutions. This may also occur if you are low on memory. However, a higher resolution scanner will be an investment for the future even if your current software can't make the best of it.

In most cases, 100 to 300 dpi will be plenty. It's only when you scan line art or make enlargements of small details.

Scanning requirements

The two main considerations as far as your Amiga is concerned are RAM and hard drive space. For anything but very small scans you'll need a hard drive (preferably with plenty of spare space for your scans (a good 100Mb free at least in order to stock up a library) and a minimum of 6Mb of RAM. ScanQuix has the useful option of scanning direct to disk, which allows you to grab images far larger than your available RAM capacity. When cobined with Image Studio's virtual memory options, you can manipulate them too.

Finally, my overall impression was that most of the 24-bit flatbed scanners reviewed were pretty close in terms of speed and quality, which just left price, something which favoured the Hewlett-Packard ScanJet 5P. Cheaper scanners exist but be very careful when purchasing such units because many of these require shareware drivers and the quality of these does vary a great deal. Good Luck!

Epson GT-5000-SCSI

AMIGA MAGAZINE SUPERSTAR

■ Price: £289.00 ■ Supplier: Epson UK ✆ 0800 220 546



◀ Reliability is the name of the game with Epson and the GT-5000 looks like being no exception to the rule.

This is probably the most popular scanner for Amiga owners and there are many reasons for this. The main one is compatibility. There are quite a few scanner drivers for the 300x300 dpi GT-5000 and it's always been quite good value, although that advantage has receded lately with price drops for many of its closest competitors. Unlike the Epson GT-8500, the 24-bit GT-5000 scanner does not have dual ports so you have to choose either a SCSI or Parallel version of the unit. The SCSI model reviewed here comes with the large Centronics type 50 way connectors. Cables for this are easier to purchase than the more compact so-called SCSI-2 variants which are especially popular in laptop PCs.

The Epson GT-5000 is fairly ordinary to look at, as you can see. Its 'footprint' is only slightly larger than the A4 scanning area it offers, and it stands about 7 inches tall with the top down. It only has two buttons: one for power and another to reset the scanner. Everything else is controlled by software. The amount of control you have over it therefore is determined to a degree by the software you use to drive it. The quality of scans from the GT-5000 was as expected, very good and if I've learned one thing using Epson scanners, it is that they have proved to be very reliable over time.

Overall, I liked the Epson GT-5000 SCSI but its does clock in at around £100 dearer than the comparable Hewlett-Packard offering reviewed above right. ScanQuix 3 works well with this scanner, although you can use it with other software covered on the following pages of this round up. Perhaps build quality will prove to be a plus point in the long term.

System Requirements: Workbench 2.04 or later, 6Mb of memory, hard drive. More memory and accelerator recommended.

OVERALL
An excellent scanner but over priced for the Amiga market. **90%**

Hewlett-Packard ScanJet 5P SCSI

■ Price: £175.00 ■ Supplier: Hewlett-Packard ✆ 01344 369 369

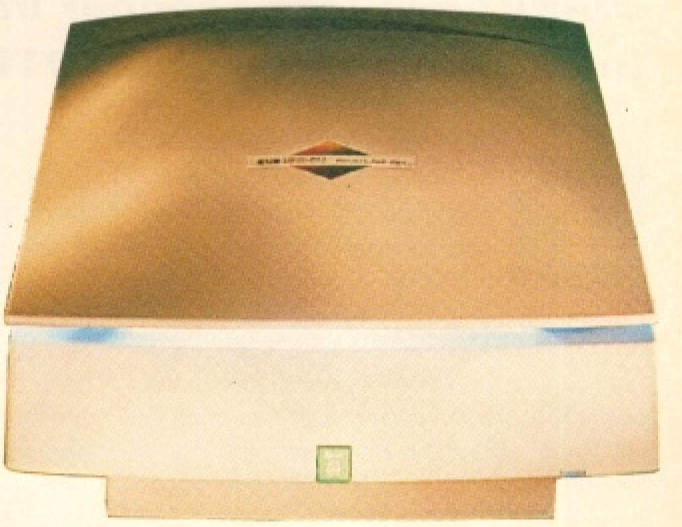
This was the first time I had used a Hewlett-Packard scanner and having had great success with their printers, I had high expectations for this budget priced 24-bit flatbed. The 300x300 dpi ScanJet 5P is about the same size as the Epson GT-5000 and comes with two SCSI-2 ports, so it can be placed within or at the end of a SCSI chain.

Obviously you'll need a SCSI-2 cable to connect it to your Amiga. You'll also have to set the SCSI ID. Unlocking the scanner heads is certainly easier than on the other scanners. What is annoying however is the location of the power switch: at the back, on the right hand side of the scanner, making turning it on and off a pain if it's sitting amongst other devices (unless you've got long arms).

Driving the scanner for the purpose of the review, I used the ScanJet driver from ScanQuix 3. This wasn't as trouble free as the Epson module. From time to time, I had some tricky moments with the previews on the "Scan to Disk" utility and a number of corrupt files as well, but what results I did get were certainly among the best. I put the corrupt files down to the hard drive I'm using but users should be aware that this may happen from time to time, so check your files carefully.

In the performance stakes, the time taken to scan images is quicker with the ScanJet although the difference between this and the other two isn't anything to really shout about. Like the Epson GT-5000, I used a Classic Squirrel to attach the ScanJet to the A1200 and used ScanQuix to control it. I did also use the Hewlett-Packard model with ImageFX 2.6, and although not trouble free (nor was ScanQuix), it did a passable job.

If price is your main concern, then this is definitely the best of the three looked at here. Even if it's not, it's still the most highly recommended overall. It may not have the extra features of the ViewStation, but it does just as good a job on scanning prints.



▲ Doing an impression of a toadstool, the HP ScanJet is a great union of quality and value.

System Requirements: Workbench 2.04 or later, 6Mb of memory, hard drive. Memory and accelerator recommended.

OVERALL
An excellent scanner no matter which way you look at it.
93%

Artec ViewStation

■ Price: £259.00 ■ Supplier: Gasteiner ✆ 0181 345 6000

The 300x600 dpi Artec scanner has been around for a while now and if the comments I've had from customers are anything to go by, the only drawback with it in the past has been the software it comes supplied with. This doesn't seem to be an issue anymore as it's now supplied with a version of ScanQuix 3 (unforuntately with German manual though).

One of the advantages of the Artec ViewStation over the other scanners on review is that it comes with a Classic Squirrel SCSI interface as an optional extra priced at only £30 if bought with the scanner. The cable supplied however was not correct so make sure the one given to you will allow you to connect everything up without the need for gender changers and so on. Check with your existing gear to find out how it will sit in your system and make a note of what leads and connections will be required before ordering.

To get up and running, I wasn't helped by the lack of any instructions for unlocking the scan heads, setting the ID and so on. These I'm assured by Gasteiner, are normally provided. One thing that worried me that would have been helped by documentation was that the scanner light stays on with the Artec, even when its not in use (but turned on).

At the end of the day, I was impressed with the Artec even though it was up against some stiff opposition. It did what it was asked and you can't ask for more than that. It costs more than the others here, but it does come with a connector for an optional transparency scanning unit, and also has a single line LCD status display on the scanner itself. It's a but bigger than the other two, but not substantially so, and offers increased upper limits of scanning resolution with its 300x600 dpi 'eye'. This is a good option for anyone who is looking to move into more professional projects in the near future.



▲ Offering 300x600 dpi scanning, the ViewStation can create some very crisp reproductions.

System Requirements: Workbench 2.04 or later, 6Mb of memory, hard drive. Memory and accelerator recommended

OVERALL
A first-rate scanner but you do pay more for the extra power
89%

ScanQuix 3

■ **Price: £59.95** ■ **Supplier: Eyetech ✆ 01642 713 185**

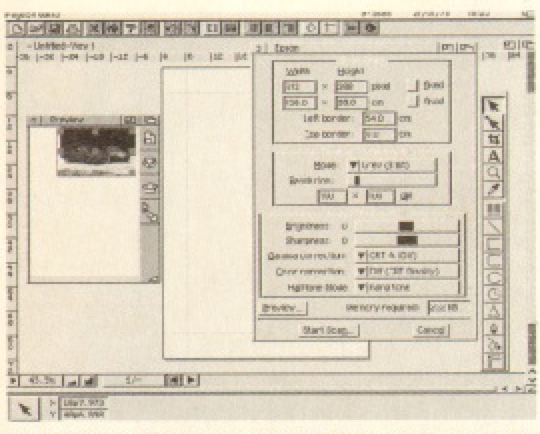
Much more than just a scanner driver, ScanQuix 3 offers seemless scanner import features with your favourite graphics and DTP applications.

The Amiga has for a long time had to do without a dedicated scanning package that gives us the same features that PC owners have enjoyed for years with their scanner drivers. Not anymore, because ScanQuix 3 lets you use your scanner much more effectively. You can use it on one of two main levels: either as a stand-alone scanning interface or as a device to allow scanning directly into a number of existing graphics and DTP packages. The ScanQuix drivers currently available work with the Hewlett-Packard ScanJet, Epson GT series, Artec and Mustek scanners.

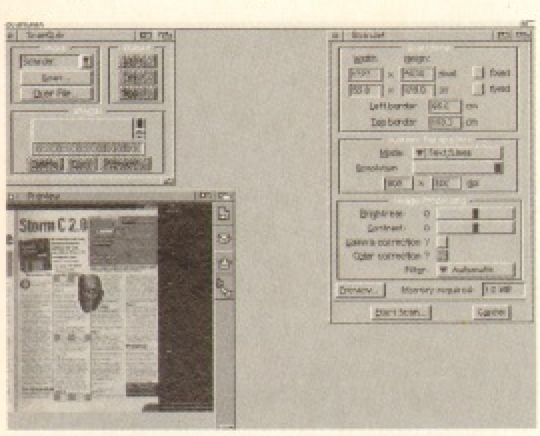
ScanQuix: basic use

First let's take a look at ScanQuix in its most basic form: scanning an image and saving it to disk. Once a scan has been completed, the image can be saved to disk using various colour depths such as 8-bit (256 colours) or 24-bit (millions of colours). JPEG saving is supported for 24-bit images, which is handy considering the enormous size of raw 24-bit images of even small dimensions. Some Amiga-specific file saving options would have been nice (such as HAM-8 for example) but any half decent image processor will be able to convert between a few file types.

The only time scanning got mildly complicated was when I had to set many of the attributes for controlling the scanner. These attributes vary depending on which scanner module is being used at the time and I felt were not that well explained in the printed manual.



▲ **How about this for a neat trick. Scan images straight into PageStream 3 is not a problem for ScanQuix 3.**



▲ **ScanQuix enables you to scan text at high resolution as well as photographs and other stuff. It does not though come with any OCR functions.**

Scanning direct to disk

A full 24 bit scan at 300 dpi of an A4 image is going to generate a truly gigantic file, far bigger than most Amiga users will ever have room for in RAM. For this reason, there's a Scan To Disk option included, which cuts out the need to store the entire scanned image in RAM at once. This has the knock-on effect of allowing quite large images to be worked on by those with small Amigas too, although don't bother trying to do anything too ambiious without at least 6Mb of RAM.

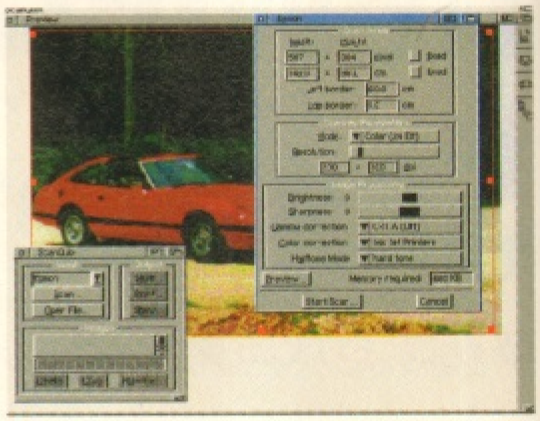
Now the good bit

We now come to the real high point with ScanQuix: its unique ability to let you scan into a number of applications. These are few in number but nevertheless, provide a much needed boost for those of us who do a lot of scanning on the Amiga. The programs supported by ScanQuix 3 are ImageFX, Personal Paint, Photogenics, PageStream 3 and Art Department Pro.

The scanning operation in PageStream 3 is dead easy. Once the scanning module has been called from a PageStream macro, ScanQuix 3 appears on the same screen as PageStream 3 and when finished, the image is placed onto your page. It couldn't be simpler and I'm sure I'm going to be using this a lot in future.

The next test was Personal Paint 7 and despite some error requesters on booting the program due to the ScanQuix scanner driver having trouble with a device on the SCSI chain, once Personal Paint was loaded, I was tickled pink to see how well the program went about loading the scanned image via the usual ScanQuix interface which opens up on Workbench.

Scanning into ADPro again proved to be no problem and I also managed to scan an image into ImageFX as well although this unfortunately wasn't without a few difficulties, none of which affected the final image.



▲ **ScanQuix 3 is a new package that allows you to scan images using a number of popular scanners including those from Epson, Hewlett-Packard, Artec and Mustek.**

Now it's a photocopier!

The last feature of ScanQuix is the Photocopy program. The aim of it is to let you scan and print in the one action. There are two scanning modes, one for text and another for photos with further choices for the resolution of the scan.

The end result of the copy process was an image better than you'll get on a standard photocopier providing you use a good quality printer with enhancement software. What I don't understand was why the authors have restricted it to black and white. Let's hope we see some colour options soon.

In short, ScanQuix 3 is very good. Not perfect and many areas could be improved but I like it a lot and it's just what we need. With a price of £59.99, it isn't cheap but then it does a great job of getting the most from today's powerful scanners.

SCANQUIX 3
Developer: Eyetech

System Requirements:
Workbench 2.04 or higher, 6Mb RAM and hard drive

Ease of use 92%
Overall most modules are simple to use. The configuration section can be tricky but need not be used in general.

Performance 88%
Workman-like interface gets the job done, although there are a few inconsistencies and occasional glitches.

Value for money 90%
It may not seem cheap but for this kind of integration with such a variety of applications, it's hardly expensive.

OVERALL
An essential purchase for all scanner owners

90%

Other Accesories

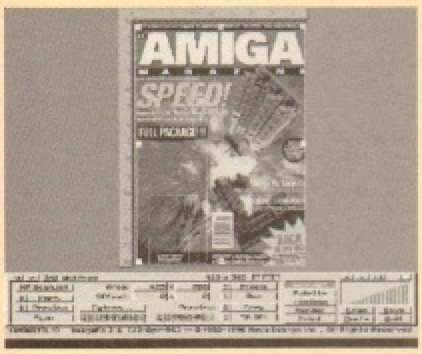
ImageFX 2.6

- **Price:** £179.99
- **Supplier:** Wizard Dev.
- **Contact:** 0181 303 1800

AMIGA SUPERSTAR

ScanQuix 3 may be the new kid on the block but there are still a number of other programs that will drive scanners on the Amiga. The one I have been using for years is ImageFX which supports Epson and Hewlett-Packard scanners.

Of the two makes, I would say that ImageFX seems to work best with the parallel-based Epson GT series. Using it with SCSI versions of the above scanners has resulted in mixed results although this may be down to the SCSI controller I'm using (Classic Squirrel).



▲ The program with the best interface for scanning is ImageFX 2.6 although it must be said, I did experience a few glitches with SCSI scanners and the application is three times more expensive than either ScanQuix or PowerScan Professional.

Of all the packages available, ImageFX certainly has the best scanner interface for previews and because you're scanning into one of the finest image processing packages we have on the Amiga, it's well equipped to let you do what you want with a scanned image.

ImageFX's only drawback is price. At almost £180, it's looked upon as being well over priced for the average Amiga user, which perhaps it is. It is however a professional quality product, priced in that no-man's land between comparable professional software on other platforms and far inferior commercial software and shareware. At the end of the day you can't really quibble about the price as it's in a league of its own. This is just one area in which it shines.

System Requirements: Workbench 2.04, 6Mb memory, hard disk. Recommended: 18Mb memory, Accelerator & FPU.

OVERALL
Excellent image processing package
93%

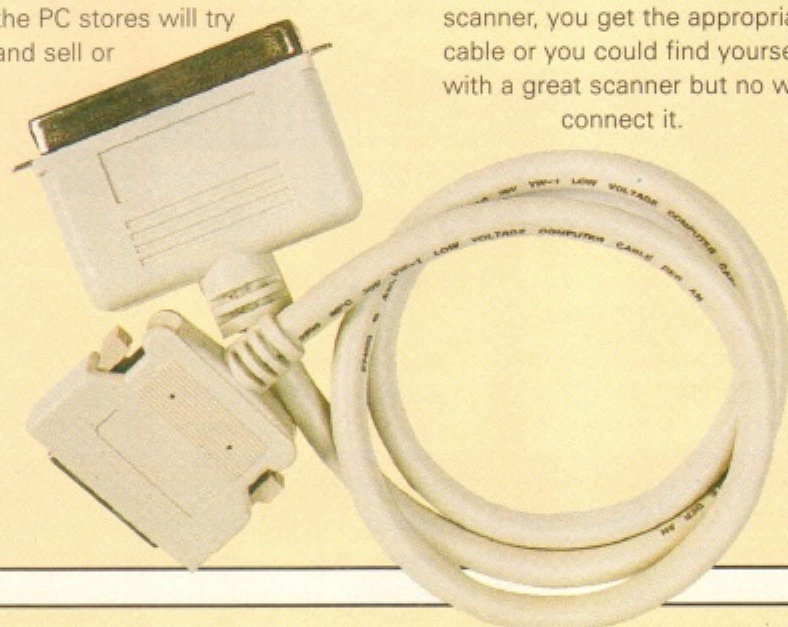
Cable capers

What's the biggest problem connecting a scanner to an Amiga after software drivers? The answer: cables. All three of the scanners I received for review gave me grief when it came to connecting them to an Amiga. They all had different SCSI connections and it took some lateral thinking like using a Zip drive as an intermediate convertor to get all the scanners to connect to the Amiga.

If you happen to get a parallel scanner like the parallel version of the Epson GT 5000, the situation isn't any better. Forget the cables the PC stores will try and sell or give you, they won't work unless you have a special adaptor available from Eyetech. Depending on what software you use, the type of cable will also vary. All are parallel cables, but they are wired up differently.

The variations in parallel cables are ScanQuix, ASDG and GVP. The most popular type of cable is an ASDG wired one which is supported by many packages. That doesn't make it the best but it does make it the most compatible. ImageFX, ScanQuix, PowerScan and AD Pro all support it.

The moral of the story is to make sure that when you buy your scanner, you get the appropriate cable or you could find yourself with a great scanner but no way to connect it.





▲ Everything from large full colour scans to high resolution black and white copies are possible. If direct scanning into applications isn't important, check out PowerScan.

Powerscan Professional

- **Price:** £49.95
- **Supplier:** Power Computing
- **Contact:** 01234 851 500

Like ImageFX, Powerscan Professional has been around for many years and is a home grown product from well known Amiga supporters Power Computing. Like ScanQuix 3, Powerscan Professional is the type of application that lets you complete the job of scanning an image with a minimum of fuss.

It comes with a well produced manual and certainly has many more image processing functions than ScanQuix 3 but less than ImageFX (not surpising really, as ImageFX is the undisputed king of Amiga image processing). It is also designed around supporting the Epson scanner range and as far as I know, no others. Its strongest advantage is price because of all the scanning applications, Powerscan Professional is the cheapest at £49.95.

My only reservation about the program is that unlike ScanQuix, it doesn't let you scan into applications which is something that I've found very useful. If that's something you can live without, then Powerscan Professional does the job and very well at that. Could do with an interface change though.

System Requirements: Workbench 2.04, 6Mb memory, hard disk.

OVERALL
Getting on a bit but this package will let you
82%

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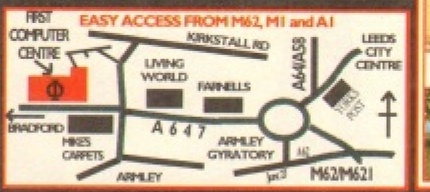
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Imagine is a way of life for some: could it possibly be improved upon?

There is no doubt that at times Imagine can be a real pain in the rear view display. It wouldn't be a lie to say that the Detail Editor, where most time is spent creating objects, can appear overly complicated. Of course, once it all clicks into place it makes perfect sense, but the learning curve is so steep that at times it seems to double back on itself.

Obviously anything which attempts to make Imagine easier to use is therefore very welcome indeed, especially a new product from a UK software house. Imaginex is a new product, designed to improve the Imagine user-interface, and speed up every-day functions. To achieve this, Imaginex exploits a little-known, little-used Imagine facility: the ability to define new buttons.

Once you install Imaginex (a painless process involving the single floppy disk and the Imagine Preferences Editor) you'll notice two things: first, the colour scheme is now blue, and second there is an extra batch of buttons at the bottom of the Detail Editor.

Yes, Imaginex will speed up Imagine, but not because of any increase of rendering speed. The time you save will be the time you normally spend puzzling over the various menu options, because all the vital functions are now available at the bottom of the screen. Instead of hunting around for the menu option to create an object, you can now click on the OBJ button.

Click on the ATT button and the object attribute window pops up. The new select scroll buttons are especially useful, cycling between the objects on screen or individual points or faces, depending on which editing mode has been selected. In fact, as you can see from the screenshots, plenty of other commonly used features now have their own buttons. My favourite is the one which means you can now perform a Quickrender with a single click: bliss.

The shade of blue used is pleasant too, and has been chosen to reduce the flickering caused when running Imagine in an interlaced screen mode. It's very relaxing on the eyes, but if you don't like it, an ordinary brown/gold colour scheme is provided.

On the minus side, most if not all, of the buttons replicate functions which have perfectly good Amiga-key shortcuts. You aren't given the ability to do anything new, only to do what you already do that little bit faster. Imaginex does mean that you can perform almost all functions without touching the keyboard, but it doesn't perform miracles.

Faster rendering?

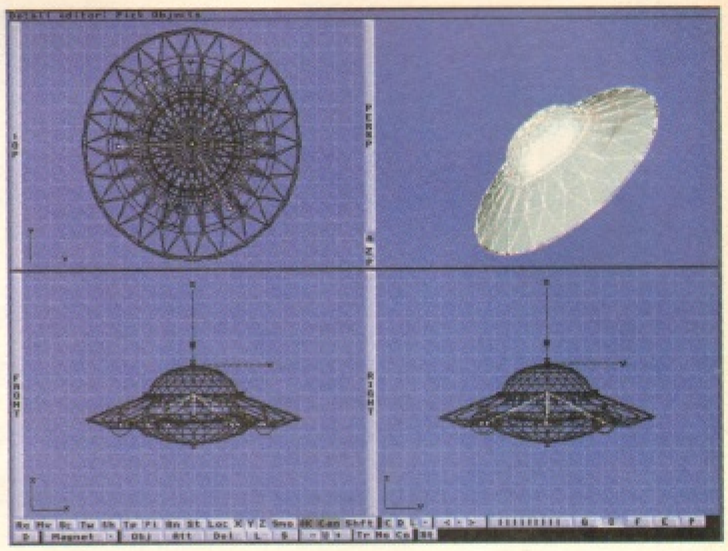
Well, almost. As you probably know, Imagine makes use of preset graphics modes. These are the image sizes which you can select when you open a rendering subproject from the Project menu. Imaginex has PAL-ified all these from their default NTSC settings (so that a low-resolution screen is 320 by 256 instead of 320 by 200) and also provided some sensible AGA HAM8 settings. Two new modes given the nickname "Pixel Burners" are defined, and these are small enough to render quickly, whilst still being large enough to be visible.

Other preset modes are defined with inkjet printers in mind. The settings have been optimised to suit printers operating from 360 by 360 DPI to 1440 by 1440 DPI. To help you plan for these settings, a template is provided for you to load into your scenes. This is in reality a rectangle which won't appear in your final scene, but is useful for accurately composing your scene.

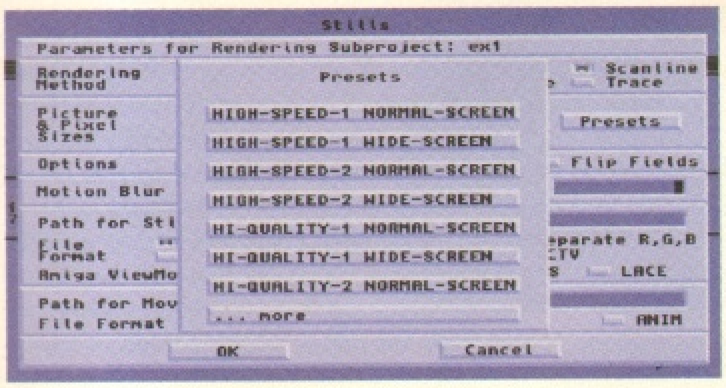
Again, this is nothing which you couldn't actually do yourself: it's simply that the majority of Imagine users won't have bothered, or even known that the facilities exist. This laziness does result in a lot of wasted time in menu options and larger-than-necessary test-renders.

It would be easy to write Imaginex off as unimportant, but after using it for a while it has proved itself very useful on my system, and I'd certainly not delete it. The asking price is fair, and in short, if you do use Imagine a lot you'll find that Imaginex makes things that little bit easier and quicker. ■

John Kennedy

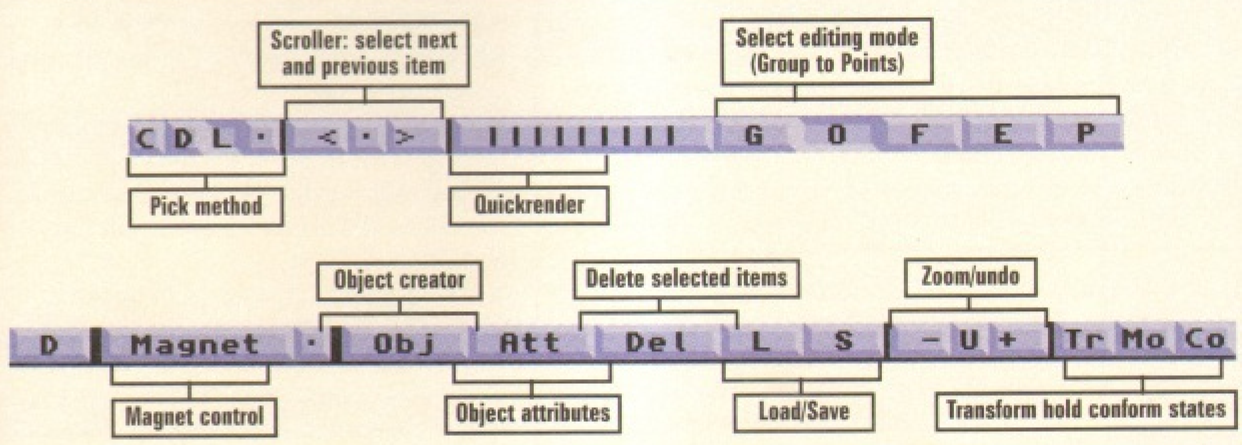


▲ A change in colour, but notice the extra buttons at the bottom of the screen. The Detail Editor has been upgraded!



▼ New preset rendering modes make Imagine PAL happy.

Buttons



IMAGINEX
Developer: GOC Publishing

System Requirements:
Imagine

Ease of use	90%
Easy to install and very easy to use. Will help Imagine users of all abilities.	
Performance	80%
Won't speed up your computer, but you'll spend more time rendering and less cursing.	
Value for money	85%
A fair price for a useful utility.	

OVERALL
Worthy addition to Imagine… nice new colour scheme too!
85%

Squirrel CD-R

AMIGA SUPERSTAR

■ Price: £399.95 ■ Developer: HiSoft & Philips ■ Supplier: HiSoft ✆ 01525 718 181

A plug 'n' play CD writer package for the A1200 is long overdue. Now HiSoft have rectified the situation with their Squirrel CD-R.



I bought my first CD writer (a bare SCSI mechanism) for about £800, with every blank disk costing £10. Looking at today's prices it's hard to believe that was only a couple of years ago. These days the cost of blank CDs has fallen to about £2 and lower if you shop around.

At this price, this means CD Recordables (CD-R for short) are easily the cheapest random access mass storage around. Actually writing to a CD-R is a delicate affair, slow and time critical, but at the end of the day you have a 650Mb disc that can be read by standard CD-ROM drives. Most CD-R drives can read a lot faster than they write, and so double up as very capable CD-ROM drives in their own right.

That makes a CD-R drive more attractive than ever. HiSoft have produced a pack for standard A1200s which bundles a Squirrel PCMCIA SCSI interface and an external CD writer with its own power supply. HiSoft are also the UK dealers for the superb CU Superstar-rated MakeCD software and this is provided in the bundle.

The drawbacks of CD-R in the past were the cost and the time critical nature of recording. The cost has come down and inroads have been made into recording reliability, the latter accomplished with larger internal buffers. When CD-Rs are 'cutting' a gold disk, they must feed the drive with a continuous flow of data (unlike other storage devices). If the CPU or the SCSI bus is interrupted, the CD-R is in danger of suffering the dreaded 'buffer underun' in which the data stream dries up (even if only for a split second). The result is a ruined CD-R disc disaffectionately known in CD-R circles as a 'coaster'.

The Squirrel

This extremely popular PCMCIA SCSI interface is just the ticket for an A1200. Known to function perfectly with a wide variety of Amiga accelerators and various SCSI devices, the Squirrel is a good general choice to connect a CD-R to the A1200. There's also the Surf Squirrel with much the same SCSI interface but also sporting a high speed serial port for the Net heads.

HiSoft tell us they can supply any combination of Squirrel variants, internal and external CD-Rs and of course the MakeCD software.

Drive options

HiSoft will either supply a Philips CDD2600 or a Yamaha CDR200T mechanism with their CD-R bundle. Both are roughly the same specification, reading data and raw cdda (CD Digital Audio) at six speed while they write at two speed.

Here at CU Amiga, we're familair with the CDR200 and its faster brother the CDR400, as we use them to cut our cover CDs. These drives are famous for reliability and a lack of firmware problems. Sadly this is not quite the case with the Philips CDD2600 drive. I've heard numerous reports of firmware problems with this drive. After an an extensive test out on a variety of software, it successfully managed to write multi-session, Mode 2 style photo CDs and so on, which is to be expected but a bit of a challenge all the same. However, it didn't work in Disk-At-Once mode with Burn It (the bundled MakeCD software doesn't do Disk-At-Once).

This is a little bit of shame as Disk-At-Once makes it possible to master complex audio CDs with track markers and custom lead-ins. The Yamaha drive on the other hand is faultless here.

The Philips also had a bit of a problem reading raw CD audio. Reading cdda off a CD towards the end of a disc (the outside edge) saw the drive lock up, report errors and so on.

The problem went away if I forced MakeCD to read at single speed though.

We've had bad experiences with the former Philips model, the CDD2000 but Philips seem to have ironed out most of the problems. Given a choice, I would still prefer the

HiSoft CDR options

Because of the varying specification Amigas out there, HiSoft are very flexible when it comes to CD-R packages. Here are the main ones.

SquirrelCDR XL - External drive + disk, MakeCD and Surf Squirrel	**£469.95**
SquirrelCDR GT: External drive + disk, MakeCD and no SCSI Interface	**£399.95**
SquirrelCDR I: Internal drive + disk, MakeCD and no SCSI Interface	**£349.95**
Make CD private version with manual	**£39.99**
CD-R media - pack of 10	**£22.90**

Applications

All this CD cutting is well and good but what can you really do with it? Here's a few of the most common;

1. Backups.

Backing up probably won't be the major reason to buy a CD-R but when you've got one, a quid per month to copy the vital parts of your hard drive to CD can't be beat. When things go badly wrong, having your entire system and vital files on a CD makes you feel very good to have a CD-R.

2. Library storage.

If you have an application that requires filing of large quanitites of files, be they scanned images, sound samples or whatever, CD is ideal. It stores a large amount of data but is very quick to access. One can also use multisession modes to append more data to a CD which has already been recorded to.

3. Audio recording.

This is a very nice application of CD-Rs. It's possible to read the raw digital audio from existing CDs into large data files. These can then be burnt onto a new CD-R creating a perfect digital copy. That means you can make your own CDs with your favourite CD tracks which will work just fine in a CD portable for example.

This might have been over the top with high media costs but in recent times this is a very real alternative to other digital audio recording methods. A CD-R is a fraction of the cost of DAT or Minidisc media although write only once of course.

Yamaha drive, so it would be a good idea to request it specifically.

HiSoft's external box for either drive can't be faulted with its SCSI ID selector and a reasonably attractive finish, though personally I'm not too keen on the Squirrel sticker.

The Software: MakeCD

MakeCD has been covered in detail previously. It's the premier CD mastering software for the Amiga, used to master CU Amiga's own cover CDs.

MakeCD supports virtually everything there is to support except for Disk-At-Once mode. If you want to do fancy audio mastering, the expensive Burn It is the only option until Master ISO 2 arrives later in the year. MakeCD supports every flavour of ISO generation you could possibly want.

Whether you want to make a simple CD copy of your hard drive or multiplatform ISO 9660 and Rockridge formats, it's up to the job. MakeCD also has the facility to cut 'on the fly'. Instead of building the 'ISO image' onto a hard drive and then cutting from that, it can build the ISO image and send it straight to the CD writer, thus saving hard drive space.

Unfortunately, to cut on the fly there are a number of factors which affect success. These are the speed of the Amiga, speed of the drive, whether you are reading from a SCSI drive on the same interface and whether there's a lot of small files in the source.

The only safe way is to try first in Test mode but this involves hanging around for as long as it takes to cut a CD to see if it will work for real. In reality, we recommend you don't count on this working, instead making sure you have a large hard drive for storing the temporary ISO images.

Make CD is a fantastic package but it is loaded with switches and settings which can be confusing. Thoughtfully HiSoft have provided a printed manual rather than the AmigaGuide only form as released on Aminet. MakeCD still isn't perfect however. It's not as efficient as MasterISO and the package states a 68030 as one of the requirements.

With the Philips drive, every time I tried to abort a process, I found the package locked up and I needed to reboot. The MakeCD authors say this is due to the CD-R ignoring a SCSI command which seems to point too a suspected firmware bug.

The MakeCD GUI is also rather large and convoluted. Not a major consideration since when cutting CD-Rs, the Amiga should be left alone to avoid buffer underruns but I would have liked the main GUI to have vanished at least.

Conclusion

The Squirrel is the weak link in this set-up, as with all PCMCIA devices it's not the quickest and it also consumes significant CPU time. As a result this impacts on reading from an IDE device which is also a CPU driven interface. No doubt this is why HiSoft don't offer the option of a more expensive 4 speed CD-R deck.

I'm impressed with the fact that the pack does work faultlessly on a standard 68030 equipped A1200. That said, cutting on-the-fly is virtually impossible unless there's not a lot of small files to write. We tried to copy a CD from an IDE CD-ROM to the CD-R with MakeCDs copy function but this also failed with a buffer underrun.

The Squirrel CD-R package works well enough for the majority of applications. If making several changes to a large CD and then recutting is your business then you'd be well advised to consider a faster SCSI interface, perhaps an add-on to a trapdoor accelerator such as the Blizzard SCSI, then it should be possible to use a 4X CD-R and build on-the-fly.

Most of us won't need this and will welcome the value for money that the Squirrel CD-R package presents. Ask for the Yamaha 200 CD-R mechanism, organise a large hard drive and you wont be disappointed with the HiSoft CD-R bundle. ■

Mat Bettinson



HISOFT CD-R BUNDLE
Developer: HiSoft & Philips

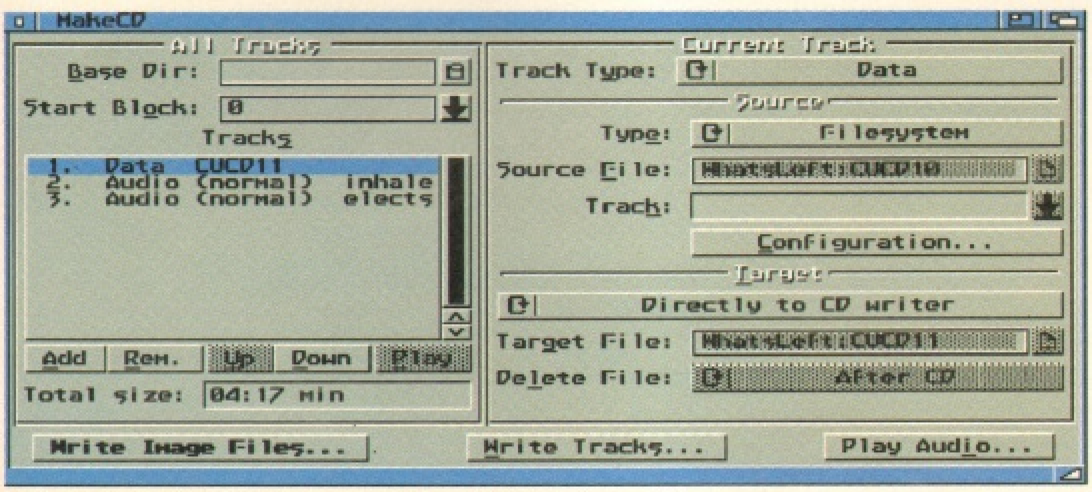
System Requirements:
A1200 with 68030 accelerator minimum and a big hard drive.

Ease of use 88%
Squirrel is plug 'n go but Make CD can be complex.

Performance 92%
Does what it says on the tin.

Value for money 93%
The CD-R is so-so but MakeCD is a steal.

OVERALL
Excellent and economical CD writing solution.
91%



▲ Here's Make CD's main GUI about to build one of CU Amiga's cover CDs.

NEW... POWER UP

AMIGA™ GOES POWERPC™

POWER UP YOUR AMIGA...

*A further dimension is being added to Amigas with our new PowerPC based **BLIZZARD POWER BOARDS** for A1200, A1200 based Tower Systems and A1500/2000 systems along with the new **CYBERSTORM PPC** for A3000/4000 systems. You'll now be able to benefit from performance many times beyond the speed of the fastest 680x0 based boards.*

Designed as upgrades for existing systems, **Power Boards** incorporate innovative dual processor technology where a fast PowerPC RISC processor is combined with a 68k CPU, dynamically sharing memory and system busses.

While the original AmigaOS 3.x continues to run on the 68K CPU, supporting existing applications to provide backward compatibility, the PowerPC CPU is backed by comprehensive PPC Libraries which provide the functionality to integrate PowerPC into an Amiga multitasking environment.

Software developers can easily optimise their programs, step by step, porting single tasks to PowerPC code, which then run in parallel with 68k tasks. Leading Amiga software vendors are preparing ported or optimised versions of their software packages already. It is anticipated that a large quantity of software products supporting the PowerPC will be available soon.

Power Boards will be delivered with a comprehensive suite of utilities, including the PPC library, as well as tools for creative users. Among them is a Public Domain GNU C compiler for PowerPC (including sourcecode), many demo programs and utilities with sourcecode. In addition to this software, free developer support is available via FTP site.

Last but not least, a PowerPC optimised version of CyberGraphX V3 with RISC optimised CyberGL/3D plus MPEG functions and libraries is included (along with a special GGX driver to support the AGA chipset) with full and comprehensive documentation.

	Blizzard 603e PowerBoard	Blizzard 603e+ PowerBoard	Blizzard 2604 PowerBoard	Cyberstorm PPC
PowerPC CPU Clock Speed	603e 175MHz	603e 200MHz	604e 150-200MHz	604e 150-200MHz
Companion CPU	68030 50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz
Est. PPC Performance MIPS SpecFP95	@ 175MHz Approx. 250* Approx. 3.1	@ 200MHz Approx. 280* Approx. 3.5	@ 200MHz Approx. 350* Approx. 7.1	@ 200MHz Approx. 350* Approx. 7.1
Memory Option SIMM Sockets	Max. 64Mb 1	Max. 64Mb 1	Max. 128Mb 4	Max. 128Mb 4
SCSI On Board	Fast SCSI-II	Fast SCSI-II	Ultra Wide	Ultra Wide
Amiga Compatibility	A1200(+T)	A1200(+T)	A1500/2000	A3000/4000(+T)
Est. Availability	Summer '97	Summer '97	Summer '97	Summer '97

Blizzard 603e Power Board - A1200(+T)

The new Blizzard 603e Power Board is an inexpensive Power Up Accelerator for A1200 system owners who already have a board with a socketed full 50MHz 68030+MMU processor (these CPUs have a gold finish to the top surface) eg.50MHz Blizzard 1230-II, III, IV or similar. Featuring a 175MHz PowerPC 603e RISC CPU, the board has a socket for the 50MHz 68030, expansion capabilities of up to 64Mb high speed memory and built in SCSI-II controller.

Imagine the performance from your A1200 with this low cost board!

Blizzard 603e+ Power Board - A1200(+T)

The Blizzard 603e+ Power Board is the highest spec Power Up Accelerator for A1200 systems. Featuring a 200MHz PowerPC 603e RISC CPU, the board has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 64Mb of high speed memory and built in SCSI-II controller. This board is ideally suited to those owners who already use an accelerator with either a 68040 or 68060 CPU (ie. Blizzard 1240T/ERC or Blizzard 1260 owners or their equivalents)

If you want the BEST from YOUR Amiga A1200 - this is it!

Blizzard 2604 Power Board - A1500/2000

If you own either an A1500 or A2000 you can now take advantage of PowerPC technology with this 604e CPU RISC based board which has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 128Mb of high speed 64-Bit memory, built in Ultra-Wide SCSI controller and a high performance expansion slot for expansions such as the CyberVision PPC. This board is ideal for owners of accelerators with 68040 or 68060 processors such as the Blizzard 2040 or Blizzard 2060 owners (or their equivalents).

Want the BEST from YOUR Amiga A1500/2000? - Look no further!

CyberStorm PPC Board - A3000/4000(+T)

CyberStorm PPC is the ultimate accelerator for Amiga 3000[T], 4000[T] and systems with compatible CPU slots, offer blistering 604e performance - more than 10 times faster than any 68k based accelerator on sale today! Available with clock speeds of 150, 180 and 200MHz, the companion socket for the 68k processor accepts either a 68040 or 68060 CPU. The board provides 64-bit wide extremely fast memory expansion using pairs of standard SIMMs, dynamically shared by the two CPUs. Additionally, CyberStorm PPC comes with a DMA driven Wide ULTRA SCSI controller on board offering transfer rates of up to 40Mb/sec for even the most demanding of professional applications. A 32Bit high speed expansion connector, with DMA access to the main memory, is also provided for later upgradeability.

The 200MHz version of the CyberStorm PPC provides performance of more than 350 MIPS or approximately 8.1 SPECint95 and 7.1 SPECfp95*... breathtaking speed that goes far beyond that offered by most PC systems. In the second half of the year, an advanced graphics board will become available for the CyberStorm PPC expansion slot, providing a subset of the innovative CAIPIRINHA custom chip. By having a stand alone version of the DLRP (Display List Risc Processor), this board will offer superior display capabilities through higher VRAM-based resolutions, pixel depths and speeds, as well as the potential to begin developing software supporting the functionality of the forthcoming A\BOX system.

PRICING AND AVAILABILITY:

Options with or without 68k CPUs will allow users to fit the CPU from their existing accelerator. Delivery of Power Boards is scheduled for Summer 1997 following finalisation of CE approvals. Call now for full details.

Special prices available to existing BLIZZARD & CYBERSTORM board users

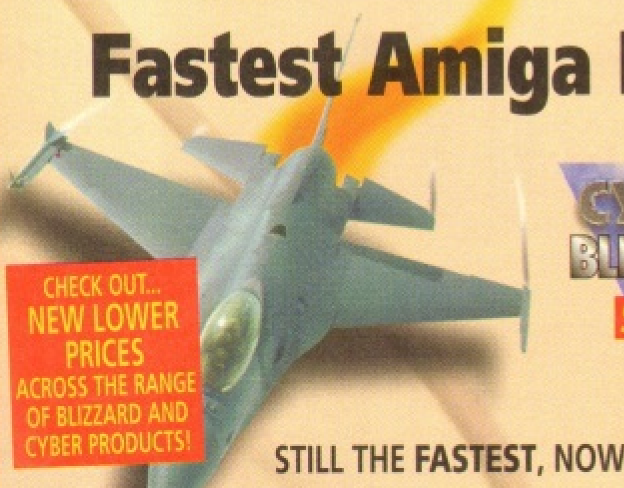
Blizzard 603e/603e+ Board...	175MHz	200MHz
with Empty 030 Socket	£289.95	
with Empty 040/060 Socket		£379.95
with 68030/50MHz fitted	£329.95	
with 68040/25MHz fitted		£429.95
with 68040/40MHz fitted		£459.95
with 68060/50MHz fitted		£614.95

POWER PC TECHNOLOGY, POWER PC SPEED and POWER PC PERFORMANCE

Cyberstorm PPC 604e Board...	150MHz	180MHz	200MHz
with No Processor	£479.95	£549.95	£629.95
with 68040/25MHz fitted	£519.95	£579.95	£669.95
with 68040/40MHz fitted	£549.95	£609.95	£699.95
with 68060/50MHz fitted	£709.95	£769.95	£859.95

**Quoted performance figures are estimations based on specifications from Motorola/IBM and are relevant to the PowerPC processor only.*
Prices Include VAT @ 17.5%.
Owners of other makes of board or those who don't already have an appropriate CPU - please call for prices.

Harwoods... always the Fastest Amiga Boards and NOW PowerPC Technology for Amigas too!

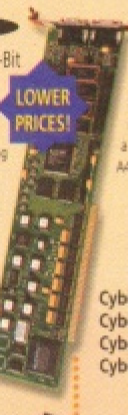


CYBER BLIZZARD SPEED

CHECK OUT... NEW LOWER PRICES ACROSS THE RANGE OF BLIZZARD AND CYBER PRODUCTS!

STILL THE FASTEST, NOW LOWER PRICED, NO ONE ELSE COMES CLOSE!

CYBERVISION 64/3D



64-Bit ENGINE A2000/3000/4000 (T Series) 3D VERSION 24-Bit COLOUR ACCELERATED GRAPHICS CARD.

For all Zorro-3 and Tower System A1200s with Zorro II backplanes.

The core of this great board is the VIRGE GRAPHICS CHIP from S3. With 3D capabilities, it's able to process complex 3D functions in hardware (eg. shaded & textured surfaces) with Trilinear Filtering and Shading/Fogging for super realistic Real Time 3D Rendering. When used with CyberGraphX 3D library, Cybervision 64/3D can even offer a broad range of 3D facilities for any software developer.

LOWER PRICES!

CyberVISION 64/3D... 4Mb Version — £139.95

MPEG Decoder - added to the Feature Connector to provide real time MPEG audio and video decoding at full size custom screens or, in Workbench windows (HQ display using 16/24Bit modes from CyberGraphX Workbench). Stereo audio output is provided via the supplied dedicated line output jack. Upgrade to a Cybervision 64/3D and MPEG bundle (from previous Cybervision 64) for a special low price! — £149.95

Monitor Switcher - with integrated scan line doubler. Designed to fit into the Amiga slot, this gives full automatic switchover from the standard Amiga signal to Cybervision 64/3D's output. Both cards may be fitted inside A3000/4000 models leaving three Zorro-III slots free. — £69.95

CYBERSTORM II

CAN BE EXPANDED TO A FULL 68060



AMIGA 68040ERC AND 68060 ACCELERATORS

You can choose between the 68040/40ERC Cyberstorm II or the ultra powerful 68060 version. When you fit a Cyberstorm II 68060 Accelerator to YOUR A3000, A3000T, A4000 or A4000T you can for example, render a graphic with Imagine 2.0 software in just 2.4 minutes! Compare that with 10.34 minutes on a standard A4000 '040/25! With no jumpers, both Cyberstorm II models are fully plug and play and, A4000 users even have the option of a SCSI-2 Module if they wish (A3000s already have SCSI built in).

- Up to 128Mb of standard SIMMs can be installed and you can even transfer the 72Pin SIMMs from your Amiga A4000 straight onto your new Cyberstorm.
- Optional SCSI-2 Module
- If your budget currently only covers the cost of Cyberstorm II 68040ERC, you can always upgrade later to the full 68060 processor for the extra power!

LOWER PRICES!

Cyberstorm II 68040/40 40MHz 68040ERC - 0Mb, Expandable to 128Mb — £239.95
Cyberstorm II 68060/50 50MHz 68060 - 0Mb, Expandable to 128Mb — £389.95
Cyberstorm II SCSI-2 Module — £69.95
Cyberstorm II SIMM RAM Expansions (Please call for a range of SIMM prices) — £Call

1240T/ERC TURBO ACCELERATOR MEMORY BOARD



A1200T* TURBO ACCELERATOR and MMU/FPU for *TOWER SYSTEMS
40MHz 68040 - 0Mb Standard, expandable to 128/256Mb
30MIPS with 60 Nanosecond SIMM fitted.

CAN BE EXPANDED TO A FULL 68060

A super LOW COST A1200 Turbo Accelerator Board, ideal for housing on any *Tower System A1200 main board (mechanical dimensions, high power consumption and heat emission require an active cooling cap, we therefore do NOT recommend fitting to standard A1200s without the appropriate modifications etc.). The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - an excellent guaranteed and competitively priced alternative. Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

LOWER PRICE!

Blizzard 1240T/ERC Turbo 40MHz 68040 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 128/256Mb — £199.95

2040ERC TURBO ACCELERATOR MEMORY BOARD



A1500/2000 TURBO ACCELERATOR and MMU/FPU
40MHz 68040 - 0Mb Standard, expandable to 128Mb
30MIPS with 60 Nanosecond SIMM fitted.

The Blizzard 2040ERC is a super LOW COST board which offers A1500/2000 owners the opportunity to upgrade to the same performance as the Blizzard 1240T/ERC Board. Users will then be able to enjoy full A4000/040 power as well as take advantage of the built in SCSI-2 interface. The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - excellent guaranteed competitively priced alternative.

CAN BE EXPANDED TO A FULL 68060

Blizzard 2040ERC Turbo
40MHz 68040 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 128Mb — £249.95

LOWER PRICE!

1260 TURBO ACCELERATOR MEMORY BOARD

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.



A1200 TURBO ACCELERATOR and MMU/FPU
50MHz 68060 - 0Mb Standard, expandable to 64/192Mb
38.71MIPS with single sided 60/70 Nanosecond SIMM fitted.

Offers Amiga A1200 owners FULL 68060 POWER with a board that simply plugs into the trapdoor slot. Your A1200 will then operate at TWICE or even THREE TIMES THE SPEED of an '040 based upgrade and up to FIVE TIMES THE SPEED of a standard A4000! Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

Blizzard 1260 Turbo 50MHz 68060 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 64/192Mb — £319.95

LOWER PRICE!

2060 TURBO ACCELERATOR MEMORY BOARD



A1500/2000 TURBO ACCELERATOR and MMU/FPU
50MHz 68060 - 0Mb Standard, expandable to 128Mb
38.71MIPS with 60/70 Nanosecond SIMM fitted.

Offers Amiga A1500/2000 owners the same specification as the remarkable Blizzard 1260 Turbo (A1500/2000s will operate at up to FIVE TIMES THE SPEED of a standard A4000) with FULL 68060 POWER and also includes built in SCSI-2 interface!

Blizzard 2060 Turbo
50MHz 68060 and MMU/FPU with SCSI-2, 0Mb 32Bit Fast RAM, exp to 128Mb — £429.95

LOWER PRICE!

1230-IV TURBO ACCELERATOR MEMORY BOARD

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.



A1200 TURBO ACCELERATOR and MMU
50MHz 68030 - 0Mb Standard, expandable to 128/256Mb
9.91MIPS with 60 Nanosecond SIMM fitted.

The highest performing 68030 Accelerator available for your A1200. With its 50MHz 68030 and MMU, the 1230-IV offers BETTER PERFORMANCE at a LOWER PRICE. With a SysInfo rating of 9.91 (using a 60 n/s SIMM) you can see the 1230-IV is very fast... a performance gain of up to 500% is achieved! Via its Fast Expansion Bus, an optional SCSI-2 Controller module can easily be fitted. An industry standard SIMM socket provides for up to 128Mb of auto-configuring 32Bit Fast RAM (up to 256Mb with the SCSI-2 option using its extra SIMM socket).

LOWER PRICES!

Blizzard 1230-IV Turbo 50MHz 68030 and MMU, 0Mb 32Bit Fast RAM, exp. to 128/256Mb — £89.95
Fast 60 Nanosecond SIMM RAM Expansions - 32Bit, 72Pin — £Call
Motorola Maths Co-Processor - 68882 PGA type FPU, 50MHz — £39.95

MOTOROLA MOTIVATED

Blizzard and Cyberstorm products use MOTOROLA 68000 and PowerPC series processors. They run **WITHIN** the electrical timing specification laid down by Motorola to prevent any possible overheating/reliability problems. So, when you pay for a 50MHz CPU for example, that's exactly what you get... not a 40, 33 or even a 25MHz CPU "clocked" to 50MHz! Look out for the **MOTOROLA MOTIVATED** logo - your guarantee of our commitment to quality and reliability - **BEWARE** of "clocked" CPUs! T/ERC and ERC processors used on selected boards are recycled and vigorously tested 68040 CPUs operating at 40MHz - an excellent guaranteed and competitively priced alternative.

BLIZZARD SCSI-IV KIT



SCSI-2 MODULE for 1230-IV, 1240T/ERC & 1260, & ADDITIONAL 128Mb SIMM SOCKET
(Fast SCSI-2 DMA Controller - upto 10Mb/s transfer rates with additional SIMM socket/extra RAM)

Blizzard SCSI-IV Kit — £59.95

1230-IV, 1240T/ERC and 1260 FEATURES

- May be disabled with simple keystroke on boot up - for full games compatibility, even badly programmed/older software
- Battery backed self re-change Real Time Clock
- High performance expansion with full 32Bit wide DMA
- Easy trapdoor installation - no modifications required (1240T/ERC fits in Tower)
- 1230-IV features PGA FPU socket allowing optional 50MHz 68882 FPU

What the Magazines think...

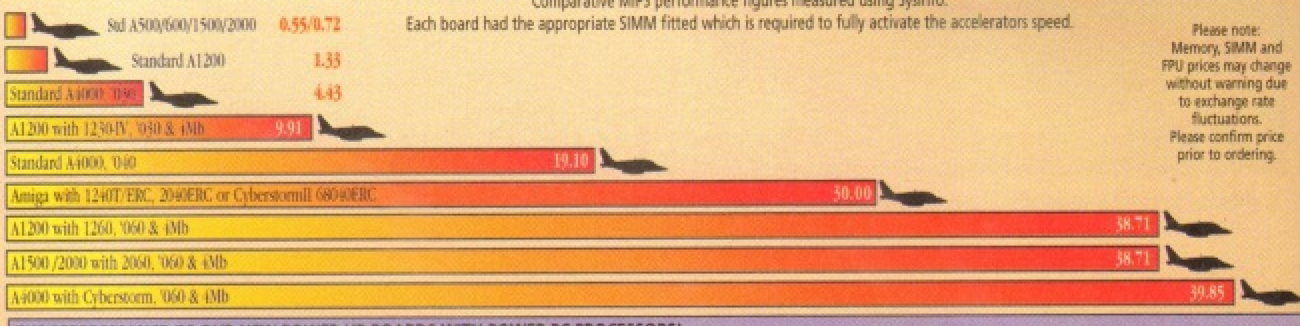
Blizzard products have consistently achieved the highest magazine accolades and awards!

Amiga Shopper *"...1260 is destined to become the ultimate object of desire for A1200 owners"* - **91% STAR BUY Award**
Amiga Computing *"...If you want the fastest Amiga in the World, get this board"* - **92% BLUE CHIP Rating**
Amiga Format *"...Ride on the fastest A1200 in the World..."* - **95% GOLD Rating**

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Comparative MIPS performance figures measured using SysInfo.
Each board had the appropriate SIMM fitted which is required to fully activate the accelerators speed.



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Use either Satellite signals or VCR output of TV or Video, including S-VHS

STAGE 1

Select any video source with S-VHS or composite output. This could be your camcorder, TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

STAGE 2

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device). Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from either TV or satellite sources.

STAGE 3

Use the 'grabbed' image with your favourite word processor, DTP or graphics package. ProGrab really does make it that simple!



Grab images with your Camcorder including S-VHS

ProGrab™ 24RT Plus...

- Supports all recent Amigas and is also fully AGA Chipset compatible. You can render images in any Workbench screen mode resolution including HAM8 mode (Amiga RAM permitting).
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- Software has built in mono and colour animation facilities. Number of frames is dependant on Amiga RAM.
- Release 2.6.x software now includes... Additional Teletext Facilities - with either terrestrial or satellite TV signals. Larger Preview Window - double resolution and four times area of previous ProGrab software. International Support - now compatible with composite PAL, SECAM and NTSC - straight from the box. Larger Preview Window - double resolution and four times area of previous ProGrab software.



ProGrab™ 24RT Plus costs just £99.95 LOWER PRICE!
and is supplied with just about everything you'll need♦...

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- User Manual
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♦ *A video source cable will be required to match your own equipment - ask us for details.*
* *Standard ProGrab hardware is PAL/SECAM/NTSC compatible. Interlace mode options are available with PAL & SECAM only.*
ProGrab supports any Amiga with Kickstart 2.04 or later and a minimum of 1.5Mb free RAM.

PCMCIA Interface - A600/1200

ProGrab's optional PCMCIA Interface includes the latest version software and extends performance for serious or professional users - offering the following benefits...

- Faster downloading times (up to FIVE times quicker)
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- Saving of animations direct to your Amiga's hard drive
- Freeing of your Amiga's parallel port for use by a printer or other peripheral
- Sound sampling and animation capabilities (separate sound sampler required, see right)

PCMCIA Interface LOWER PRICE! **£29.95**

Stereo Sound Sampler

Fantastic high quality 8-Bit Sound Sampler specifically designed for use with the ProGrab 24RT digitiser (PCMCIA Interface is also required).



This Hi-Fi sampler features the same 30MHz A/D convertor used in the ProGrab, maximum frequency is therefore only limited by your Amiga hardware.

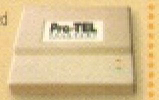
Featuring a band width of 40Hz to 20KHz, quality is higher than standard samplers.

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Amiga or PC add ons for grabbing terrestrial or satellite TV Teletext pages which don't need a dedicated Teletext TV/Video to operate... required signal is simply the output taken from a standard VCR or a TV that provides a suitable video out signal. Once information has been downloaded, ProTel allows you to view pages instantly... no more waiting whilst your TV searches!

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- Friendly software
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- Requires 386DX PC and 8Mb RAM (12Mb Rec.), Windows '95/3.1 or Workgroup 3.11, VGA display, Mouse and 1 free 8/16Bit ISA slot - MINIMUM
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ProTel™ PC Teletext Decoder £29.95

Camcorder User commented... "If you're looking for a high resolution 24 bit digitiser then, at this price, ProGrab 24RT represents great value for money."

ProGrab™ - Voted as The Best Video Hardware *product for the Amiga. Especially pleasing because the award comes from Amiga Shopper magazine's readers... Satisfied Customers!*

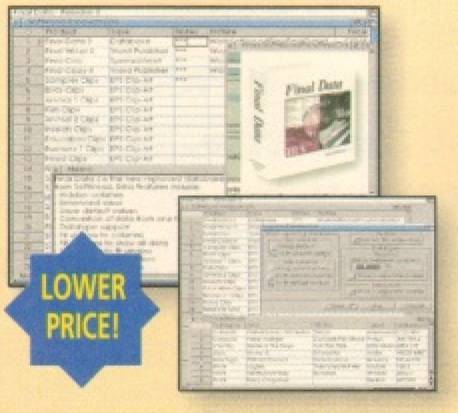
ProGrab™ - Amiga Format 95% Gold Rating and comments like... "ProGrab 24RT Plus is quite simply the digitiser to get", "Incredible value for money - no other digitiser offers so much for so little" and "Offers far more features than any other digitiser near the same price"

ProGrab™ - Amiga Shopper 95% STAR Buy and remarks like... "Sharp, crisp and faithful to the original colours, we were mightily impressed" and... "Highly Recommended. Whether you are a Videographer or a Graphic Artist, look to the ProGrab 24RT Plus. It's a winner" Hi-Fi Stereo Sampler - Amiga Shopper 92% STAR Buy April 1997.

CU Amiga said ProGrab™ is... "Just the job for beginners and semi-professionals on a tight budget" and, "very hard to beat. For the money, nothing can touch it"

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- Easy definition of columns for categories of information such as name, house number, street, town, county, postal code, phone number etc.
- Built-in routines for rapid label printing
- Print/mail merge with word processors
- 'Memo' feature, acting like a 'Post-It' note, to enter large amounts of text within any record

For Amigas with floppy or hard drives running Workbench 1.3 or later & a minimum of 512K of free RAM (HDs - 1Mb)

☆☆☆☆☆NEW LOWER PRICE!☆☆☆☆☆

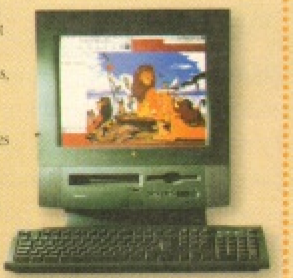
SoftWood Final Data 3 **£19.95**

THE APPLE ALTERNATIVE

IF YOU'VE REALLY GOT TO BUY A NEW SYSTEM TODAY... the next best thing to your Amiga could be an Apple Macintosh.

BUT WHY MACINTOSH?

Just like your Amiga, all Macs are Motorola based but have had the advantage of PowerPC RISC CPUs for some time - remember, even Pentium PCs in Windows™ systems are still merely CISC processors! Like the Amiga, Macs were designed from the outset to be an easy to use system with their windowing environment fully integrated - not bolted on later. And... Macs not only outperform other PC systems, but have recently become very competitively priced too.



Software: there are over 1800 titles specifically written for PowerPC Macs alone, plus thousands from pre PowerPC days which are still compatible. Industry standards such as Word, Pagestream, Word Perfect, FileMaker Pro, Excel, Quark XPress, Photoshop and many others have been developed for Macs.

Creativity: Apple still lead the creative world - 80% market share in colour publishing, most web sites are authored with Macs and post production video editing is dominated by the Macintosh too.

The magazine you are reading now was published using Macs!

Internet and Communications: all Macs are Internet Ready - many include built in modems and fax facilities etc. and standards like Netscape and Internet Explorer ensure the Net is easily accessible.

Connectivity and Expandability: all Macs incorporate built in networking and external SCSI connections - adding printers, drives, scanners etc. really is plug and play!

Education and Edutainment: Macs offer you the advantage of all the latest software from the likes of Dorling Kindersley, Microsoft etc. to help with the whole family's learning skills.

Multimedia: Apple is the World's No.1 Multimedia PC Vendor!

Recreation and Games: Some of the big selling games are available on the Macintosh including Ultimate Doom, MYST, Rebel Assault II, Dark Forces, Descent, Full Throttle and many more!

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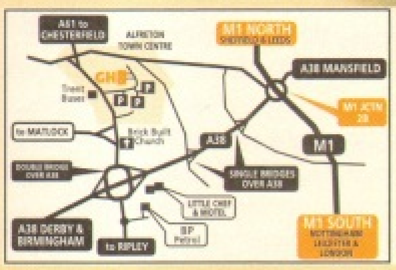
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Sharp MD-MS200 Minidisc

■ Price: £289.99 ■ Developer: Sharp ■ Supplier: Victor Electronics ✆ 0181-4271889

▶ Here's the Sharp MD-MS200 portable Minidisc player/recorder. Not only high tech stuff but it looks great to boot.

We've looked at Philips' Digital Compact Cassette, now it's the turn of Minidisc with the latest Sharp model.



Consumer electronics has to be something pretty special for us to cover. Philips' digital cassette was just that; stunning CD quality audio in HiFi separates and portable player/recorders alike. Sadly Philips decided to pull out of DCC and the format is destined for the history books along side Betamax. Those with DCC kit and a supply of tapes will no doubt use it for many years yet but whatever killed DCC had to be something special. It was, it was Minidisc.

Sony's Minidisc initially failed to impress me. The early units had two seriously negative features; they were very expensive and the audio quality was clearly inferior to DCC and CD. Since then, a number of other manufacturers have licensed Minidisc to make their own units. This coupled with rising popularity and better technology has forced prices down. All that remained was the audio quality issue. That too has been addressed.

Sharp is sharper

The portable MD player/recorder reviewed here is the Sharp MD-MS200, the main competitor to Sony's popular MZ-R30. I spend a lot of time comparing the two units in HiFi shops and eventually concluded the same as web based research was saying, the Sharp has better quality audio, better features and is much better value. What's it like then?

From the outset, the MS200 struck me as the most incredible piece of technology I've witnessed yet. The portable 200gr (that's light!) unit features front loading and comes with a 3.6v 1400mAh Lithium-Ion battery that weighs less than a single AA while sporting many times more power. The Sharp will playback for an outrageous 9.5 hours at a realistic volume level and record for 7 hours! An optional 6 x AA pack clips to the back. The list of features and niceties of the Sharp goes on; the headphone remote carries fw,back,stop,play,bass boost/track insert and digital up/down volume. The later is welcome, no rotary controls to break after a few months. There's also a socket on the headphone remote to use your OWN headphones. Decent in-ear units are provided. Also contained are a fat manual, 60 min disc and carrying pouch.

Editing functions

As with all Minidisc units, recording can be numbered, labelled, edited, deleted, inserted, jointed and a plethora of other editing functions. The button controls are very easy to use. The input/output jacks are also very well thought out. The input jack is a dual analogue/optical digital input, recording level can be adjusted on the fly and there's a very good peak hold LCD level meter.

The output jack drives headphones and line level output alike. The LCD display is a full dotmatrix alphanumeric job. Physically the unit is gorgeous, light and robust. The recording quality is stunning, I recorded a variety of sources and the playback was unbelievable through headphones and jacked into a HiFi. Minidiscs themselves are fantastic, smaller than a floppy disk or even a CD single, the shutter can't be opened by accident and many MDs can fit in a pocket with the Sharp comfortably.

Am I impressed? You bet. This tiny miracle of technology has rendered my entire DCC HiFi deck and portable player obsolete. MD prices are now cheaper than DCC tapes and the editing facilities are superb. It's great skipping tracks just like a CD discman. The microphone in even powers active microphones and unsurprisingly offers ace reproduction. I really can't recommend it enough.

They'll have to pry it from my cold dead fingers before they get it back. ■

Mat Bettinson

Further reading

If you're interested in Minidisc and finding the best models and prices for you, there's two web sites you should check out;
http://www.minidisc.org
and if you want to buy the latest models at top rates direct from Japan, consider Nic Boyde at;
http://www2.gol.com/users/boyde/MDpage.html

Audio compression

Minidisc and DCC alike use compression schemes to reduce the quantity of data required for digital audio to achievable rates. This audio compression targets only the sounds that the human ear can distinguish. This way the ear's weaknesses can be exploited. In such compression schemes. Generally the more complex the compression, the better quality audio can be achieved at a given bitrate or a lower bitrate is required for the same audio quality.

DCC was based on a variant MPEG audio layer 1 at 192kb/s. The original Minidiscs used Sony's proprietry ATRAC standard. This was terrible. Fortunately over a couple of years, Sony developed ATRAC up to version 4.5. This is so far ahead of ATRAC 1 that it's easily indiscernable from CD audio. Sharp have furthered ATRAC themselves and the unit looked at here uses 24-bit Digital Signal Processing and their own ATRAC 5.

SHARP MD-MS200H

Developer: Sharp

System Requirements:
Audio sources to record or commercial Minidisc recordings

Ease of use 97%
The on-unit and remote controls are comprehensive and dead easy to use.

Performance 98%
Minidisc has come of age. CD quality recording and playback on far better physical media.

Value for money 97%
Not dead cheap but since it records you can skip a HiFi recorder. Excellent!

OVERALL
The ultimate technology in portable audio.
97%

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Will run with Amiga 2000/3000/4000 with Kick/WB3+
but needs Zorro bus Ethernet upgrade £49.95
Amiga needs hard drive and 4mb ram.



A1200, monitor, camera and Lisa not included. Case design is diferent.

Siamese PC with RTG v2.1 features !!

- Use PC graphics card as an **Amiga RTG graphics** display. Each Intuition friendly program opens in a seperate PC Window upto 256 colours &1024 x 768 (higher with 4mb graphics upgrade). You can also have **24 bit backdrops & Video** on workbench.
- Siamese RTG uses Zero Amiga ram for display in any resolution.
- Amiga can use the **16bit CD quality sound** card in the PC, including Wave sound generator.
- **High Speed PCMCIA Ethernet** card, using TCP/IP to transfer Files, graphics, sound, user input etc.
- **Use cheap PC drives** from the Amiga including CDrom, Hard Disk, HDD floppies, Removable drives, Tape streamers at very high speed.
- Use any modem (optional) through TCP/IP, use IBrowse, Netscape 4, AmiFTP, AmiIRC all at the same time and through one Internet connection.
- Runs all Windows/Dos programs and games at 166mhz processor speed, no slow emulation.
- Use low cost **MJpeg cards** to enhance your Amiga multimedia abilities, from £150.00 for VHS quality video record/playback. SVHS versions from £500.
- Perfect for **Video producers** moving from Amiga based Analogue to Digital production methods.

All this for only £799.95 inc Vat, ex P&P

Call for configuration upgrade options

Siamese PC's include the following components.... Cyrix 166mhz processor, 512k cache motherboard, 16mb EDO ram, 1.7gb drive, 1.44mb Floppy drive, 16bit sound card, 4mb s3d 64bit PCI graphics card, Keyboard, Mouse, Windows 95, CE approved Mini Tower case. Amiga components:- Hydra pcmcia ethernet card, Siamese v2.1 Software (no switcher),

Siamese upgrade packs . . .
. . . for Amiga / PC owners.



!! Software only v2.1 !!

Supports optional High speed Ethernet network.
"the diference to the SiameseRTG was astounding"
Mat Bettinson CU Amiga

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Siamese Video Switcher

Original Switcher card and cable kit for use with the Siamese PC pack above and Siamese RTG v2.1 software only pack.

£99.95

includes Siamese v1.5 software.

Still not convinced, then take the Video Challenge.

Buy the Siamese Video or Siamese MPeg CD for £5 inc P&P. Then if you want to buy the Siamese system we will refund double the CD / Video price from your Siamese order. Don't wait, buy it TODAY !



Siamese / Hydra Ethernet Card A1200 (pcmcia) - £149.95, A2/3/4000 - £169.95

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Viper 520CD

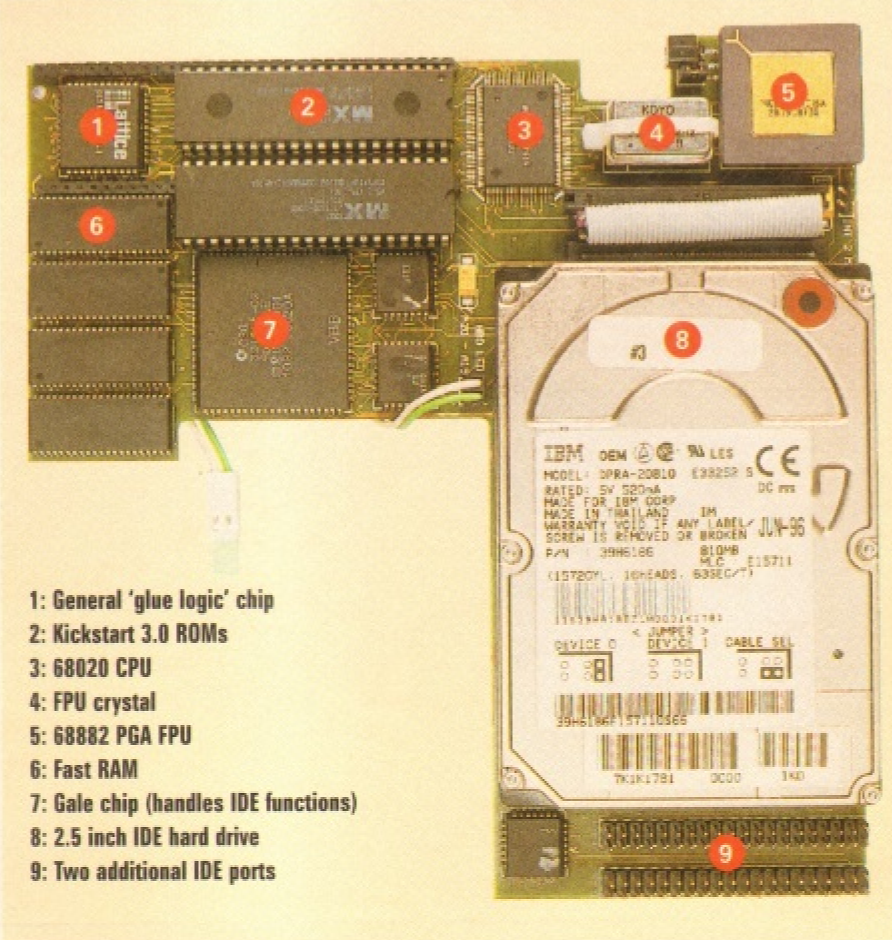
■ Price: £99.95 (8Mb) ■ Supplier: Power Computing © 01234 851500 http//www.powerc.com

Time your old A500 was traded in for a new model? Hang on, there's hope for the old dog yet in the shape of the Viper 520CD.

Ten years is a long time in computing, and the crusty A500 is certainly showing its age.

Anyone who has owned one for that long has had ample time to soup it up with extra RAM, hard drives, OS updates and whatever else, but Power Computing are banking on there still being a portion of A500 owners still using their machines as were supplied by Commodore.

The Viper 520CD makes an admirable stab at giving the old soldier a complete facelift. In one go, it offers all of the following: a 33MHz 68020 CPU, an update to Kickstart 3.0 (with Workbench 3.0 too), three IDE ports for CD-ROMs and hard drives, a 4 or 8Mb Fast RAM upgrade, plus a socket for a 68882 PGA FPU. The hard drives/CD-ROMs themselves and the FPU are not included in the £99.95 price tag, but everything else is.



1: General 'glue logic' chip
2: Kickstart 3.0 ROMs
3: 68020 CPU
4: FPU crystal
5: 68882 PGA FPU
6: Fast RAM
7: Gale chip (handles IDE functions)
8: 2.5 inch IDE hard drive
9: Two additional IDE ports

AMIGA SUPERSTAR

Squeezing it all in

You're probably wondering where all of this fits into your A500. Believe it or not, it's all housed internally – not in the trapdoor slot, but on top of the motherboard.

It connects to the 68000 CPU socket on the motherboard. All you do is take out the bulky 68000 and put this in its place. It's a bit of a fiddly job but simple enough. There's just enough room inside the A500's case to fit a slimline 2.5 inch IDE hard drive onto the card. The remaining two IDE connectors are trailed out through the left hand side of the case. A narrow slot should be cut in side of the case where the top and bottom parts meet if you want the case to screw back together, although IDE cabling isn't that thick, so you could get away with screwing the case together a little more loosely than usual if you'd rather not hack things about.

The IDE connections offer access to cheap CD-ROM drives as well as hard drives. Adding extra drives to an A500 has never been easier.

Almost an A1200

Apart from the AGA graphics chip set, the 520CD has almost all you need to turn your A500 in an A1200. Ok, so the AGA chip set is quite a major difference, especially as adding a graphics card isn't an option. Aside from that though, this does give a tired old computer a big kick up the backside, allowing it to run modern applications that require a hard drive, OS 3, a half decent CPU and a bit of RAM on the side. However, this raises the obvious question of whether it's worth beefing up such an old machine in preference to just ditching it in favour of an A1200. If AGA isn't important to you and you don't envisage the need to add much more in the way of additional upgrades (although there's still the side expansion slot) then this is indeed a neat and cost effective solution. For anyone who has found themselves marooned with an outdated computer and insufficient funds to get a shiny new one, this is an opportunity to get with the program for relatively little outlay. The difference in a stock A500 and one with a 520CD under the bonnet is radical. It turns a virtually useless box into a highly versatile and attractive computer. What more do you want? ■

Tony Horgan

Optional extras

Keeping the drives and FPU as optional extras gives you the chance to configure your setup as you wish. The FPU is a definitely worthwhile addition for anyone into 3D rendering, while the IDE connectors allow you to add variously sized hard drives, Zip drives and CD-ROMs according to your requirements.

VIPER 520CD
Developer: DCER Computer Service

System Requirements:
Any Amiga 500

Ease of use 80%
Installation is easy enough – just make sure you've got the IDE connectors on the right way round.

Performance 92%
No problems here. It works, makes your A500 faster, gives your icons little shadows and lots more besides.

Value for money 91%
You get quite a lot for five pence under £100: 8Mb RAM, a new CPU, IDE ports and a whole OS upgrade can't be bad.

OVERALL
A great all-in-one upgrade for the ancient A500.
90%

LS120 120Mb Floppy Drive

■ Price: LS120 £119.95 IDEfix £34.95 ■ Developer: 3M ■ Supplier: Eyetech © 01642 713 185

The LS120, also commonly known as the 'A: drive', we've known about for some time but due to a lack of drivers it seemed to be a non starter.

Eyetech have now sorted out drivers for the LS120 in the new package called EZ-Drive. The latest IDEFix 97 ATAPI package also contains drivers for the LS120. That sorted, what's this LS120 about then?

The LS120 is a floppy drive 'replacement' that reads and writes on 120MB disks in addition to PC MSDOS style 720K DD and 1.44Mb HD floppy disks. Sounds good doesn't it? The drive is the exact dimensions of a standard floppy drive and the 120Mb optical disks are physically identical to a standard floppy disk albiet with high tech optical media inside and a snazzy looking 3M case.

Not floppy

The LS120 does not plug into the floppy interface, it is an IDE device. It works fine with the Amigas IDE interface with the IDEFix software. As standard, the LS120 is mounted as DF4: and the drive formatted perfectly with the Fast File System on the first attempt. It also has an electronic eject rather than a physical mechanism.

There are some problems though. Firstly you can't read Amiga disks. Since it's designed for PC disks only it requires the sync function of PC disk formats. The greatest downer however was the speed. Much faster than a floppy drive but at 115K/s write and 160K/s read, it's nearly 10 times slower than an Iomega Zip drive. It takes an eternity to format and fill the disks up.

The access rate is so slow that the slow seek time as well doesn't make a lot of difference so AFS didn't speed things up a great deal.

Less robust

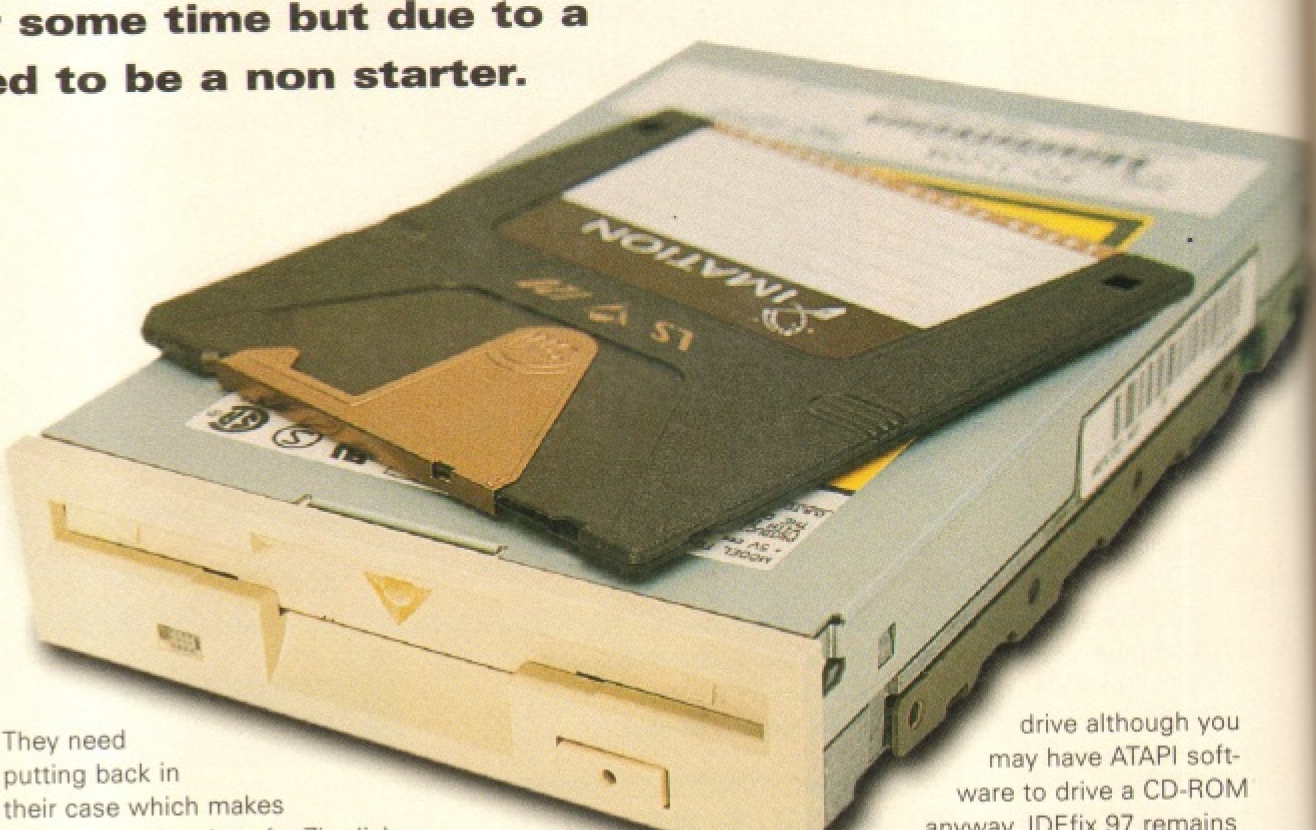
The media is an equivalent price per Mb to Zip disks but more compact. That said, I wouldn't feel comfortable leaving them around uncovered unlike robust Zip disks. They need putting back in their case which makes them about the size of a Zip disk again.

The LS120 is superb for reading and writing PC HD disks if you have a real need to do this with CrossDOS. It operates at full speed without the Paula bottleneck making HD floppies such a pain on the Amiga. It's also possible to format disks in the 1.44MB format but with Amiga FFS so gaining a slightly useful HD floppy drive of sorts.

Not really. The LS120 would be gorgeous if only it wasn't so damn slow and if only a lot more people had them. The Zip drive, on the other hand, comes in IDE and SCSI varieties, internal and external, is cheaper and a hell of a lot faster. There are also a lot more people who own them to swap media with. So if speed isn't important to you, or you really want the extra space per disk and the ability to read/write PC HD floppy disks then the LS120 could be for you.

It's unlikely anyone would fit in this bracket on the Amiga especially since A1200 users can't replace their floppy drive with it. It'll cost you an extra £35 for the software to use an LS120 or an IDE Zip drive although you may have ATAPI software to drive a CD-ROM anyway. IDEfix 97 remains the ultimate ATAPI CD-ROM/IDE driver package and is well worth the money but we recommened you use it with a Zip drive instead. ■

Mat Bettinson



▲ Here's the LS120 drive which will fit in a standard floppy drive bay of a big-box Amiga or a tower set-up.

LS120
Developer: 3M

System Requirements:
IDE Interface and appropriate ATAPI software

Ease of use — Plug in the IDE interface and install software.	90%
Performance — It's just too slow…	74%
Value for money — … but it's the right price!	86%

OVERALL
Neat little drive but way too slow.
83%

PD Scene

Game after game... Steve Bye was happier than someone living downwind of a Prozac factory when we gave him these to review!


The World of Magic

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear

The World Of Magic

■ **Type: Graphic adventure game**

■ **Available from: F1 Software. 1 Lower Mill Close, Goldthorpe, Rotherham. S63-9BY. Tel: 01709 888 127**

■ **Price: £4.99 plus 50p P&P**

With a serious shortage of commercial adventure games it is left up to the PD sector to feed the ever hungry hordes of adventurers out there, so in that respect TWOM is a welcome sight.

It is a 2 disk adventure game created with GRac (The Graphic Adventure Creator) and the only bad point about a game created with GRac is the non-standard mouse operation, but you soon get used to that. You can install the game to hard drive or boot it from floppy. Once up and running we have the usual point and click panel at the bottom third of the screen and the play screen above. The graphics, though slightly crude in places are mainly pleasant and certainly good enough for a game with this price tag. The game takes place in the world of Kawamoon, where Dragons, Orcs, Goblins, Werewolves, Kings and evil priests roam. You play a young chap called Grendon, who apparently has a strong desire to become a 'mage' (a magician one presumes?)

By manipulating objects and interacting with characters, of which there are plenty, you must solve your way around the game to its final conclusion.

I must admit that I didn't have time to complete all the game for this review so I cannot comment on the full depth of the game. I did get stuck, but as is usual in this type of game if you have the time to try every possible move in every possible location you will get there sooner or later.

TWOM has plenty of short animations that certainly add to the atmos but sound effects and humour are few and far between. TWOM appears to be a fairly well rounded and professionally produced game, which is quite refreshing nowadays. I have attempted a few GRac creations myself and I can tell you it is a lot of hard work and the authors should certainly be commended for 'sticking to the task' by producing a nice game, even though I didn't! ★★★☆☆

Splat 2

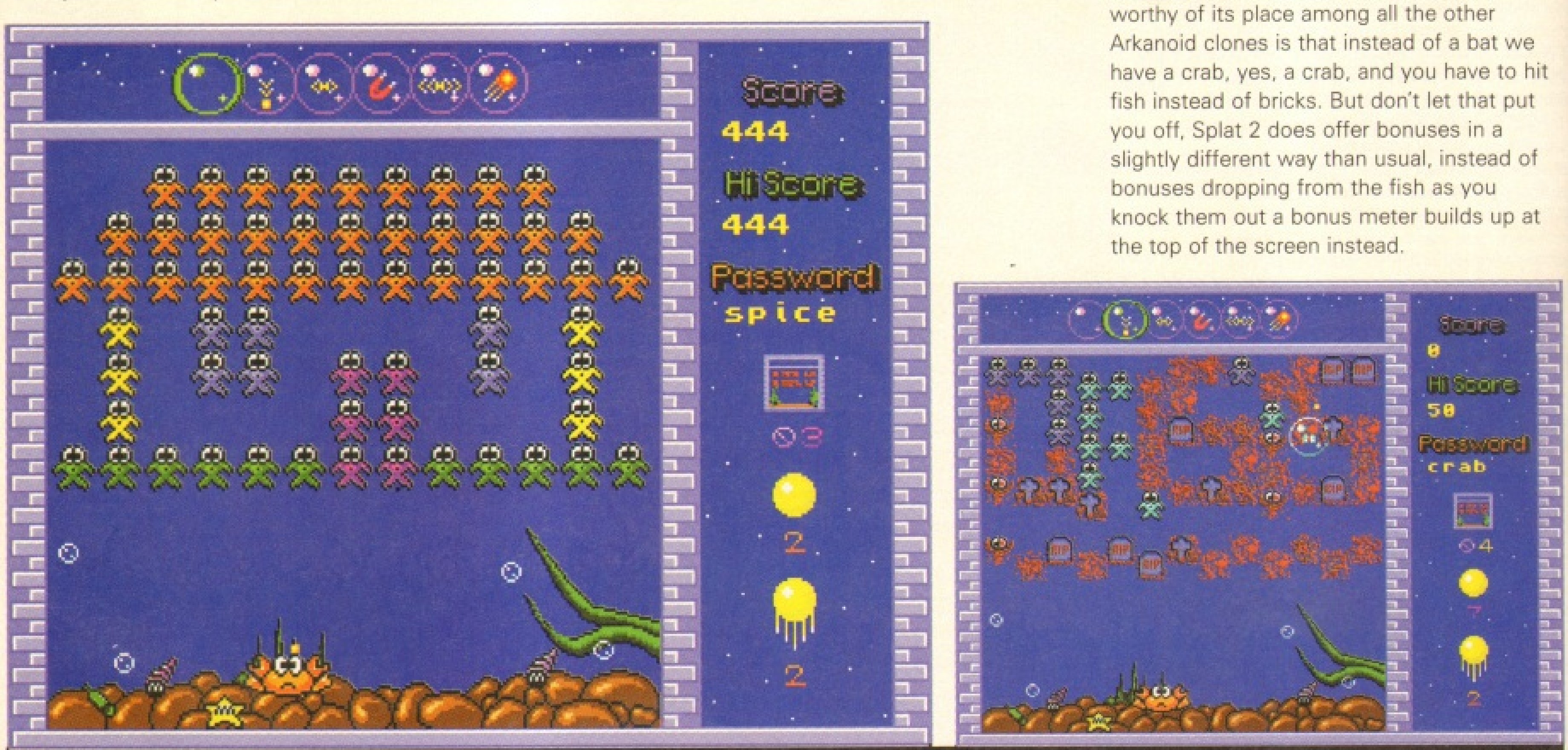
■ **Type: Game**

■ **Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH. Tel: 0161 723 1638**

■ **Price: £1 plus 75p P&P per order.**

Here we have another Arkanoid clone, i.e. hit a bouncing ball with a bat to knock out the bricks and clear the screen.

However, the twist that makes this game worthy of its place among all the other Arkanoid clones is that instead of a bat we have a crab, yes, a crab, and you have to hit fish instead of bricks. But don't let that put you off, Splat 2 does offer bonuses in a slightly different way than usual, instead of bonuses dropping from the fish as you knock them out a bonus meter builds up at the top of the screen instead.



Splat

You can collect a bonus at any time by pressing the right mouse button. Surprisingly this does make the gameplay slightly different because you find your attention keeps jumping off the bat and ball to the bonus meter in the hope of collecting the best one for the job in hand.

Looking at the graphics I think Splat 2 must have been aimed at younger players, though you wouldn't think so judging by the ridiculously fast default ball speed. The graphics are crisp and clear and the sound effects are adequate. The full version, which costs £6, has 50 levels, but I must admit I couldn't play much past 5 or 6 levels mainly due to the monotony rather than from the difficulty.

More than once I was stuck on a level with just one fish hiding in the top corner of the screen, and with very limited control in directing the ball it took ages to wipe him out, but to be fair this is a common problem with this type of game. Splat 2 is OK, it looks good and plays fine for a while but it sure won't win any awards. ★★★☆☆

Hotdog

■ **Type: Dog-fight Game compilation**

■ **Available from: OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.**

■ **Price: 75p**

This disk contains four dog fight games. First up is the 2 player only Dog-fight V1.0, released in 1990 but surprisingly still good fun to play.

It took me 15 or so attempts just to learn to take off in my cute bi-plane but the ensuing plane crash animations were so amusing I didn't care. Once you are in the air your problems are not over because the slightest false move of the joystick and you are toast, fly too slow or climb too fast and you stall and crash humorously.

Normally a game where each life lasts around 20 seconds would frustrate the hell out of me but this blighter has something that grabs you, maybe its the attractive graphics or the great animations and sound effects? No, it's just jolly good fun.

The next game on this compilation disk is.... wait for it... Dog-fight V1.1! Which is now fully AGA compatible with improved graphics and some ground defences. The third game is Strike Commander, much the same as other Dog Fight games except with a mish-mash of dodgy graphics, good sound effects, but awful gameplay.

Last and very nearly least is Dog-fight Sim V1.5 which has some of the ugliest graphics I have seen for ages, but it does offer some good features, the main one being the ability to have four simultaneous human players.

Overall this disk is certainly worth the asking price for Dog-fight but the others are simply space fillers that you may squeeze five minutes of fun out of if you are really desperate. ★★★☆☆

KidSTOP V5.3

Game of the Month

■ **Type: Educational game**

■ **Available from: Aminet\game\misc\KidSTOP.lha for the demo and Brian Koetting 3043-B Oak Green Circle, Ellicott City, Maryland 21043. USA. for the full version.**

■ **Price: $25 will upgrade the demo version to the full version.**

This 6.5 meg epic of a game, sorry, "entertainment system", as the author would have it, is designed for children of all ages, right from toddlers through to say 8 or 10 year olds.

On running the program you are presented with an animated menu, which will certainly grab the attention of most kids. Using the mouse, joystick or keyboard the child simply has to click on an animation, such as the merry-go-round or airport in order to play the activities.

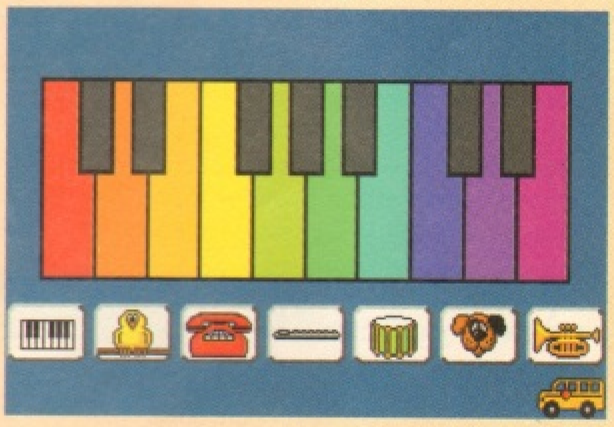
Selecting the airport for example takes you to 1 of 5 scenes. Each scene has hotspots that when clicked on will produce a humorous sound or animation, my five year old son enjoyed this activity for quite some time.

At the top right hand corner of each activity screen is a "page turn" icon so the child can progress through the different screens at will. To quit back to the main menu is just a simple task of clicking on the ever-present school bus icon at the bottom of the screen.

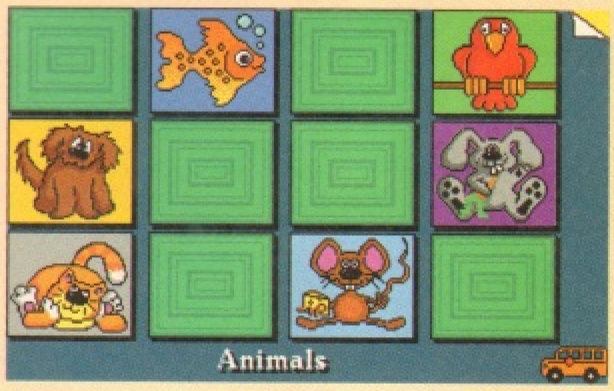
Other activities include a very good matching tiles game, colouring book, Mix and match, a counting game, a musical keyboard, ABC-123 and "ripple machine" for creating weird colours and shapes. If you have seen the Dr. Zeus's CD-ROM games for the P.C you will feel very at home KidSTOP as I am sure the inspiration came from there.

The demo version of KidSTOP has 5 of the 12 activities disabled, to unlock the missing games you have to register with the author.

The graphics are just above average for this type of program and do the job well enough. There are stacks of good and clear sound effects and the program couldn't be simpler to use. The acid test for any educational program is whether or not it will keep a child interested for a prolonged period, KidSTOP went and passed this test with flying colours on my kid and that's good enough for me, after all what do adults know about such things? ★★★★★







Tossword

■ **Type: Word puzzle game**

■ **Available from: Saddletramps PD. 1 Lower Mill Close, Goldthorpe, Rotherham. S63-9BY. Tel: 01709 888 127**

■ **Price: 80p plus 50p P&P**

1 or 2 human players must pit their vocabulary genius against the Amiga with the aim of scoring the most points by creating and placing words with high scoring letters on the board, just like Scrabble.

Tossword has its eccentricities though, for example, any word you place that's not in its dictionary will be accepted but the tiles for that word will not be allowed on the board for that game. Apparently this is to stop cheating, scary stuff huh!

The problem with this is the tiny dictionary, it doesn't recognise simple words 'pound' and 'fate' so it will take a fair amount of playing to build up a decent dictionary.

However, there are options to import and edit dictionaries which could solve that problem if you are that way inclined. Tossword comes with three dictionaries, Russian, German and of course English, a lot of fun if you are a linguist I should think.

But what really struck me as odd, or is it novel? Is that when the Amiga takes its turn on the board it attempts to help you by placing longish words in good positions as opposed to creating words that score high but give you few new opportunities as it would in Scrabble, interesting. Tossword is fundamentally Scrabble with a few added twists which I think most word puzzle fans will get enjoyment from or even get thoroughly immersed in.

If the screen design, dodgy tile graphics and fiddly controls were improved the game would be even more enjoyable. ★★★☆☆

PD Utilities

Steve Bye tries out some of the more useful examples of public domain software, then gives you his honest opinion on their worth. Read on...

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear

AmiGlobe V0.993

■ **Type:** World Atlas

■ **Available from:** OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.

■ **Price:** 75p

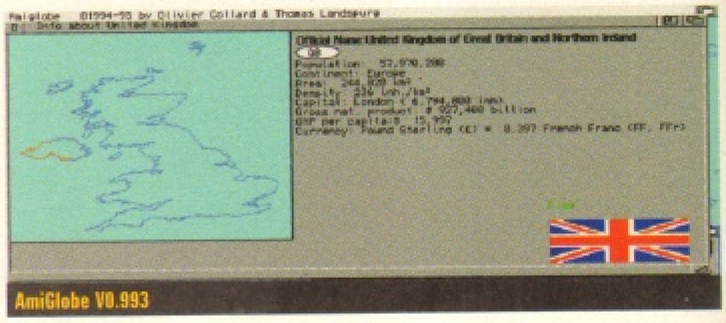
AmiGlobe is a world Atlas for your Amiga.

The program boots up with a flat plan map of the world, to find out about a country or a region of a country you just click on it and you can then zoom in or out of the map or click on 'infos' (SIC) for some detailed information about the country including population, flag, currency, GNP, etc. By clicking on the country flag you are given a textual briefing on the area.

You can view the map of the world in four ways, flat, spherical, perspective and mercators (don't ask!) Clicking on the 'Element' button and then anywhere on the map will give you longitude, latitude, population and the name of the region. AmiGlobe has a few problems here, for example, clicking on Cornwall UK, gives info for Brest in France.

I know it's only a few miles across the channel but is that really a good enough excuse?. I am also concerned at the accuracy of some of the data, after all this version was made in 1995 so unless you can find an updated version you won't be able to rely on the exchange rates, population figures and anything else that is likely to change.

It's a fascinating program that could be useful, but needs updating. ★★★☆☆



AmiGlobe V0.993

Utility of the Month...

Cartoon Studio

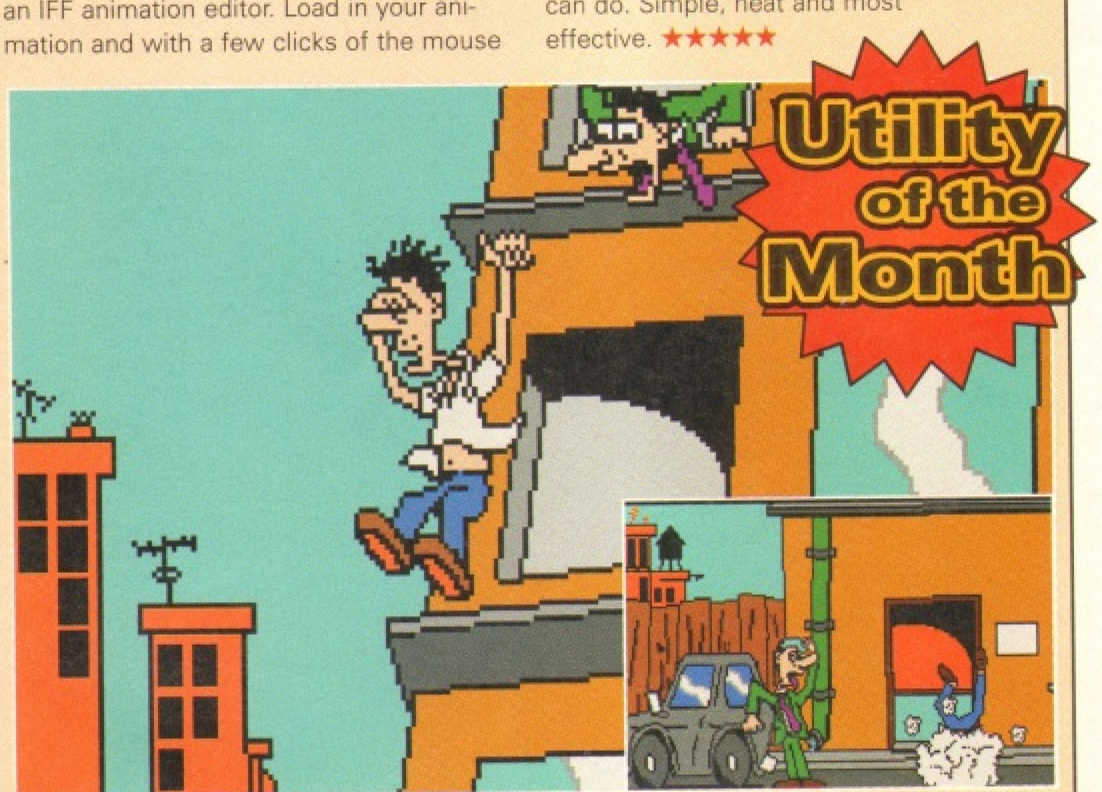
■ **Type:** Animation Editor

■ **Available from:** 17 Bit, 44 Cecil Street, Walkden,Manchester. M28-3LE Tel:0161 702 6737

■ **Price:** £1 plus 70p P&P

Ok, you've just created a nice animation in DPaint. Hmm, no sound, no fades and not runnable without a player, this is where Cartoon Studio can help. Cartoon Studio is an IFF animation editor. Load in your animation and with a few clicks of the mouse you can easily add IFF sound samples, fades, set the frame speed, add pauses and loops and finally create a stand-alone self-running disk for your masterpiece. Cartoon Studio will only accept IFF-Anim5 lowres-animations with a maximum of 32 colours, but for most simple cartoon type animations this should be adequate (say's the author).

The example cartoon included is superb and shows what Cartoon Studio can do. Simple, neat and most effective. ★★★★★



MicroPaint

■ **Type:** Paint program

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH Tel: 0161 723 1638

■ **Price:** £1 plus 75p P&P per order.

Even after all these years any new paint program on the Amiga is immediately compared with DPaint, fair or not that's the way it is, simply because DPaint is what most people are familiar with.

So any new program that goes too far against the grain has to live or die on its first impressions and if it is tricky to get to grips with people are just going to junk it. The exception to this rule of course is if the program can offer powerful features not available elsewhere (e.g. Photogenics). What I am getting at is MicroPaint (MP from now on) hasn't done itself any favours. As a user I would have junked MP after 10 minutes simply because it alienates you from the word go, but as a reviewer I will soldier on and give MP a fair hearing.

Don't get me wrong, I am not implying that all paint programs must be the same as DPaint but it is common sense to build on existing knowledge rather than start again each time. MP has some similarities to DPaint of course but it has gone its own way on a lot of unnecessary things, take the undo feature for example. If an undo is available

on a function you have to re-select the function to undo your last piece of work, surely a simple undo button or keystroke would have been better? Or how about text input?

Yuk, you type the text into a requester on a different screen, pointless. On the plus side though MP supports all the usual tools plus up to 256 colours (AGA Amiga's), Intellifonts, colour fonts, print pictures, grab screens, supports datatypes, play animations, has an ARexx port, has a recent file list, clipboard support, macros and some simple image manipulation tools.

I think MP could be a useful extra alongside your usual paint package as it has some great features not found in many other similar programs, but I doubt many people could put it to serious use on its own, though I am sure there will be some. In this demo version you can only save in BMP format, you have to register (15) for the keyfile to unlock the full save function. ★★★★★

Class HD Utils 23

■ **Type:** Utilities assortment.

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH Tel: 0161 723 1638

■ **Price:** £1 plus 75p P&P per order.

This compilation of small utilities contains some old, new and interesting programs.

QuickGrab AGA is an excellent screen grabber, Diskmasher 2 is a ok, but slightly bugged, front end for DMS, LHA2LZX automatically coverts LHA archives to the superior LZX format, System Update Util could be useful as it compares versions of your system files with the latest version available and updates them if you wish.

HotBar displays a row of icons of your favourite programs on your Workbench so you can launch them easily and quickly. Pio Icon allows you to use Personal Paint 6.3+ as an icon editor, which is nice if you don't like any of the Icon editors doing the rounds.

There are also five Workbench backdrops for WB3 users. How to write AmigaGuide is the star of this disk for me. It is a comprehensive guide on how to write AmigaGuide documents. The author wrote the guide as he was learning himself so it is not totally complete, but there are only a few oddities left to cover that will not worry most people. It is and well written and if you want to learn from scratch I haven't seen a better guide around than this. ★★★★★



Video Base V2.01

Video Base V2.01

■ **Type:** Database

■ **Available from:** OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.

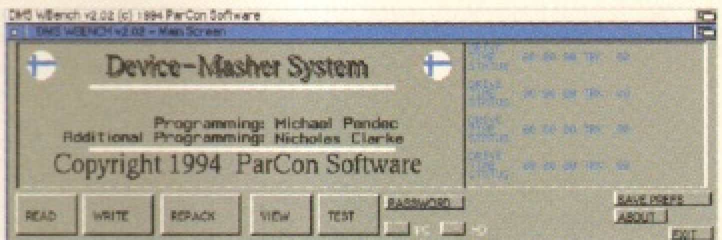
■ **Price:** 75p

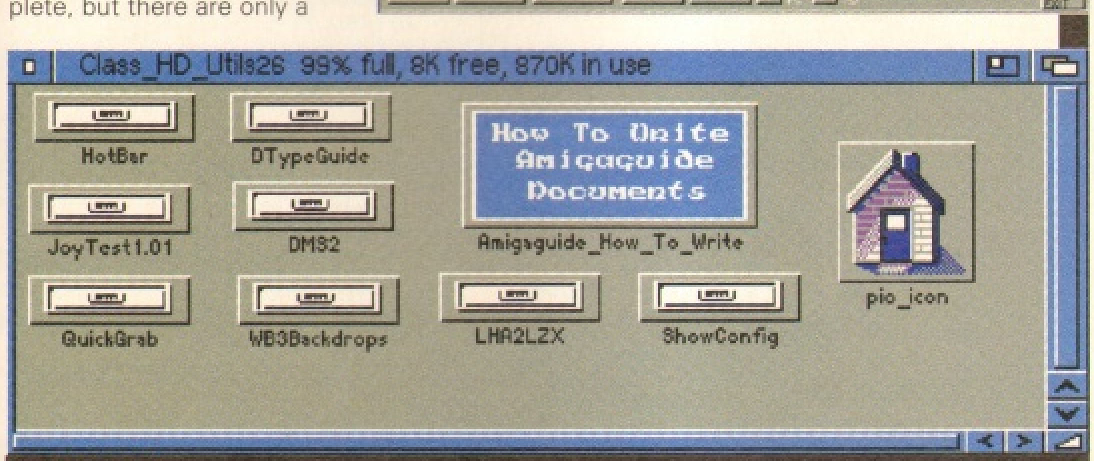
This program should be in an Amiga museum somewhere, its been knocking around the PD scene for yonks. I remember giving it a good looking at years ago and nothing appears to have changed, but as the doc file claims to have been written in 1997 I guess something must have been done to it?

No new features are listed in the docs or indeed apparent in the program. Oh well, I suppose I had better get on with it then. Video Base V2.1 allows you to easily catalogue your Video film collection.

You can add, edit, delete, view, sort, search and print records as well as add a lengthy personal review for each tape. The front-end is as ugly as a Tory MP and the program, written in Amos 1.3 and not in Amos Pro as suggested by the programmer, isn't compiled.

So, if you want to look at some Amos source code or you want to catalogue your video collection and you aren't too fussed about looks, style and features this old timer will do you nicely. ★★★★★





Class HD Utils 23

Best of Aminet

This has been a pretty good month on the Aminet uploads front. If the amount of uploads to the Aminet in any given month is a good indication of the health of the Amiga scene in general, then I can only say that the patient is doing very well indeed! The star upload of recent days has got to be util/wb/NewIcons41.lha (655K) and util/wb/NewIcons41upd.lha (115k), the latest version of the NewIcons icon replacement utility. Rating as some of the best freeware ever, this Icon replacement system preserves the palettes of Icons seperately, avoiding the dreaded palette clash that MagicWB icons suffer from. At CU we rate this as the best Icon replacement system going.

On the utilities front there were a fair batch of weird and wonderful things this month. misc/emu/MidiShape.lha (134k) is a bonus for the audiophile Shapeshifter, allowing MIDI output from Mac packages via Shapeshifter. I wonder what decent MIDI XG software there is for the Mac? On a slightly more unusual side is gfx/edit/write_it.lha (5k). This is about as simple as programs get, but I love it. It opens a window on the Workbench screen and allows you to doodle in it with the mouse. You can play back the mouse movements quickly or slowly and save your data. I'm not 100% sure what it is actually for, but for an unrepentent doodler such as myself, it saves no end of scraps of paper. The world is full of little Workbench hacks but few are as immediately and obviously useful as util/wb/PowerWB.lha (66k), a simple and apparently fairly clean hack which adds two gadgets to any windows you open, one to show all icons and the other to switch between view by name and view by icon. There are also a bunch of extra keyboard shortcuts patched in. This is one which will make it onto my system.

Regular readers of this column know I like the Aminet to keep me amused too, so before I sign off for another month I'd better point you in the direction of pix/trace/WhyYouSoLook.lha, a bizarre but rather excellent montage by Bartosz Mediger.

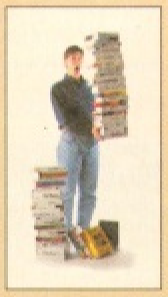


Why Macintosh?

Performance:

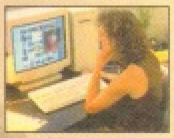
All Macs have the latest PowerPC *RISC* processors (poor old Pentium systems are still *CISC* designs). Even entry level desktop Macs run at 180MHz, with 350MHz powerhouses at the top of the range (Mac PowerBook portables offer up to 240MHz).

Software choice:



Over 1,800 native software packages (written specially for PowerPC Processor Macs) have been shipped since Power Macintosh was launched in 1994 - plus there are thousands of industry standards which can also be used. Industry standard programs such as Microsoft Word and Excel, Pagestream, Word Perfect, FileMaker Pro, Quark Xpress, Photoshop and many others were developed for the Mac.

Creativity:



- Macintosh still dominates the creative world with an 80% market share in colour publishing.
- 65% of post-production video editing is on Macs.
- Macintosh is the most widely used system for the creation of Internet web pages.
- Most magazines (including the one you're reading right now) are created on Macintosh.

Multimedia:

- Apple is the World's No. 1 Multimedia PC vendor.
- All desktop Macs have a fast CD-ROM drive as standard (many portables have internal CDs too).
- In 1995, 42 of the top 50 selling CD-ROM titles worldwide were developed on the Macintosh.
- Many Macintoshes have built-in TV with teletext so TV clips can be recorded directly to disk as QuickTime movies.
- Many Macintoshes have built-in video in and out, for direct recording to VCRs.
- Some Macintoshes have internal digital video editing facilities as standard and many others can include this facility with an easy upgrade.

ISDN, the Internet & Communication:

- Macs are Internet/e-mail ready and many include modems with full send/receive fax and answer phone. Adding an ISDN connection is easy.
- Industry standard web browsers, Netscape Navigator and Microsoft Internet Explorer, were developed for the Mac meaning Access to Worldwide Web sites is easy.
- QuickTime, the Internet's standard format for video files, or QuickTime for Windows, are both Apple products. Of course QuickTime comes as standard with every Mac.

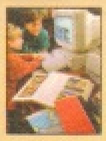
Connectivity & Expandability:

- Unlike other PCs, all Macs have networking built in as standard, so connecting systems together and adding shared printers etc. couldn't be easier.
- All Macintoshes have an external SCSI connector as standard. Adding external drives, ZIP/JAZ and other cartridge drives, scanners etc. really is Plug-and-Play.
- Low-cost digital cameras can be plugged into the Mac for instant real image input.



Education & Edutainment:

- Being the World's No.1 education supplier, quality Macintosh titles are widely available. Dorling Kindersley offer superb packages like The Ultimate Human Body and there is a varied supply from other leading software publishers too.
- Because Macintosh is the preferred system within many educational establishments, high quality software is assured.



Recreation & Games:



- Top games like The Ultimate Doom, Myst, Rebel Assault II, Dark Forces, Descent, Afterlife, Lost Eden, Legend of Kyrandia, Full Throttle & The Dig have all been developed for Macs.

Output & Presentation:

- Connecting and using colour printers (from Epson, HP, Apple and others) to Macs is so easy and with photo quality output the results are truly outstanding.

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Apple 17" 1710AV TCO MultiSync	£528	**STORAGE...**	
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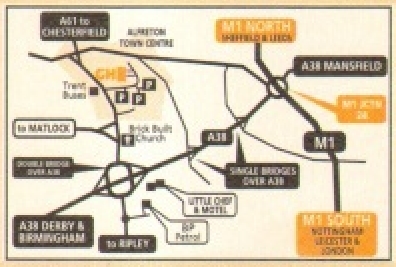
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CD-ROM Scene

We're doing a games special this month, rounding up a bunch of new and "nearly new" CD32 games available from Epic Marketing...

For the princely sum of £2.99 each (plus £1 per title postage and packing) you can purchase any one of these games – plus they'll even throw one in free for every four you buy!

There are a whole load more games than these, so get in contact with them if you want more details. Be warned, not all CD32 games will work on an A1200, but all of these worked fine when we tested them under IDEfix 97 software.

Using CD32 emulation under IDEFix97 software is particularly straightforward. A small utility will prepare a boot floppy for you. Stick the CD-ROM in the CD drive and the boot floppy in the floppy drive and boot up. The game loads as if on a CD32. Great, huh? There is of course one other important issue to take into consideration, which is that many CD32 games use the extra buttons on a CD32 controller.

The easy answer is to buy one of these from Epic, but the CD32 emulation will allow you to emulate the controls through keys. Some games are ok this way, others are a pain to play on the keyboard. Because of this we have rated the importance of a genuine CD32 controller to retaining playability.

■ **John Barnes European Football**

■ **Joypad?:** Necessary

I know someone who once played footie with John Barnes in the local park, and has ever since worshipped the very ground upon which this ex England, ex Liverpool midfield legend of dubious dress sense walks.

Perhaps to him there might be some value in this game, a sort of kitsch homage to the hero of his youth. To everyone else, my advice is to steer well clear. Ok, it works, the graphics are no worse than hundreds of other low grade titles, but that is about the best thing that can be said about this cheesy monstrosity.

There is little doubt (despite what the editor may think) about the fact the Sensible Soccer is to this day the King of Football games, so any other title has to have at least something to offer as an alternative to while away the time if you are feeling a little bored of Sensi.

Total Football, Football Glory, Kick Off 2, Dino Dini's goal, these games all had something worthwhile to offer in their own way, something to make you turn to them from time to time.

This on the other hand has nothing. Barnsey is currently achieving moderate success reviving his career with Newcastle united. This game should never have been given a revive. **20%**

■ **Fears**

■ **Joypad?:** unneccesary

Fears was one of the first of the Amiga's "Doom clones". Released around the same time as Gloom, this one was rather overshadowed by the gorey violence of the latter. Looking at this game now, I can't help but feel we have missed out a little.

The obvious failing of this game when compared to Gloom is that the aliens in this look absurdly cartoony compared to Gloom. It isn't that the Action man figures in Gloom were so utterly brilliant, it's just that the monsters in Fears are too comical to be anywhere near scary.

On the other hand the backgrounds are scary indeed. There are excellent textures and suitabley gloomy music. The whole thing trundles along at quite a reasonable rate. This is very definitely one of those games where playing on an accelerator makes a big, big difference. Give it a reasonable CPU and this game flies, full screen.

A 68030/50 is all you need to get the most out of this engine while on a CD32 you had to reduce the screen size to make it remotely playable.



FEARS



JOHN BARNES EUROPEAN FOOTBALL

Although this type of game tends to be lumped together under the category of Doom clone, it is more properly a Wolfenstein 3D clone.

You can only look from side to side, it is basically a run through a maze shooting things type of game, and as a blaster it is actually quite good fun. It's very simplistic but also very cheap. Well worth a look if you like giving cartoon octopi both barrels. **85%**

■ **Strip Pot**

■ **Joypad?:** Oh stop sniggering! No!

This is the notion. You press a button and the reels spin.

It's just like a fruit machine but if you get a line you also get to see a badly digitised photo of a nude or semi nude model. After a while, you see an animation of a semi nude model, apparently.

Even at under £3 this one is a miss. Come on, if you really have to then the top shelf of your local newsagent at least offers better photographic reproduction. Cheap, tasteless and frankly very sad. **2%**

■ **Legends**

■ **Joypad?:** Not necessary

Legends launched itself into obscurity a couple of years ago, despite being something of a rarity on the Amiga. Set over four time periods, Legends is an RPG in the Zelda style.



STRIPPOT

There is a complex storyline, full of characters to talk to and enemies to shoot. Graphically it is polished, and reminiscent of the Bitmap brothers cartoony style of art.

There is plenty to see and do and a lot of objects to find. The game is humurous at the same time as being involving, and manages to be challenging without being too frustrating. So what went wrong? It didn't get launched at the best time for Amiga games, and it certainly offers very little that is new.

The ideas behind the game perhaps outweigh the execution, but for the RPG fan starved of fodder that is a small matter. I'm sure this one that should keep you going a fair while. **85%**

Game of the Month

■ **Guardian**

■ **Joypad?:** Advisable

Guardian was clearly aimed at being defender in 3D, even down to the name.

There aren't little people to defend here, there are buildings to guard instead, it looks more like a flight sim and you don't get the pleasure of waiting at the top of the screen for a lander to get almost far enough to transform into a mutant before you blast him, grab the little guy and deposit him on the ground for a 500 point bonus. Nevertheless, in terms of sheer frenetic gameplay, Guardian has succesfully tapped into the Defender ethos.

You are probably all bored to tears with game reviewers going on about how great games were in the old days, but Defender always had that something special. There are very few 15 year old games that you could happily fire up for a quick zap moment after finishing a session of Trapped2, Quake or Tomb Raider, but Defender is definitely one of them. That Guardian was likened to Defender when it came out was no surprise, that the comaprison still holds up is testament indeed to its gameplay.

AMIGA SUPERSTAR

The polygonal spacecraft look primitive by today's standards, but the copper list horizons, adrenalin pumping action and beautifully fast screen updates make this a very satisfying gaming experience, and one I am sure I will still have the odd blast at in 10 years time. **90%**



■ **Total Carnage**

■ **Joypad?:** Unnecessary

Spare me. Whoever wrote this game was clearly of the opinion that just so long as you draw blokes with big muscles and there are lots of people dying all over the screen you didn't have to bother about minor things such as style, gameplay and so on.

This is one of those top-down-run-around-killing-things games that really took off with that classic of the arcades Gauntlet and went downhill from there. Total Carnage sees you taking on the role of a Ramboesque character, either on your own or in the company of your own little Rambini sidekick to be controlled by some friend, if you can find one willing to waste their time on this.

You are regularly assaulted by hordes of lookalike Schwarzenegger baddies who march blindly into your line of fire and can pick up the odd weapon, key, or diamond you find lying about.

Every now and again a large tank or whatever appears, but as the firing patterns all appear to be predetermined they are not really a problem, you can just stand at a spot where they don't shoot and finish them off.

In fact the best advantage the enemy have is that because the screen only manages to scroll when it wants to, they can sometimes trap you against the edge of the screen. Total Rubbish more like. **38%**



LEGEND



CARNAGE

■ **Vital Light**

■ **Joypad?:** Useful

I'm not even going to try to explain the narrative here, it's far too weird. Something to do with a city called Ramron, which is a city of mystery, marvels and video games.

This is one of those Tetris inspired games that are still being churned out today. It is easy for a title to lose itself amongst the morass of other games attempting to do a Tetris, and in the case of Vital Light that is a pity because it deserves better.

There are, as you would expect, blocks falling. They are in different colours. You have to shoot them to make them the same colour. I am sure you know the basic principle by now. There are plenty of options and two player head-to-head mode.

The setting, graphics and sound are evocatively and distinctively weird, and the gameplay is very smooth. Vital Light is one of the very best of the pseudo Tetris genre and very well worth a look. **88%**



VITALIGHT

Art Gallery

Send pictures to: Art Gallery, CU Amiga, 37-39 Millharbour, Isle of Dogs, London E14 9TZ or E-mail them to artgal@cu-amiga.co.uk.

The Surreal Thing, by Mark Ingram



The background is Vista, the painting Photogenics, the modelling Imagine, the inspiration Magritte. The contrast between the 3D rendered figure and the painterly 2D canvas adds a level of irony Rene Magritte just didn't have the technology for.

Flowers, by Lee Martin



We are more used to seeing Lee do cartoony renders than this moody realist Cinema 4D piece. The strong central composition and high contrast is reminiscent of the modernist photographers. If Western had an Amiga, he'd do renders like this.

The One Armed Raver, by Freaky (Phil Price)



A suitably lunatic piece of computer collage. The colours are well selected and the imagery appropriately used. An appropriate nick-name, Phil.

Hall, by Patrick Moore



Patrick (not the astronomer) uses Imagine 3 for the renders and photogenics to touch up. This reminds me of a dusty museum corridor, redolent of mystery. An excellent sense of place.

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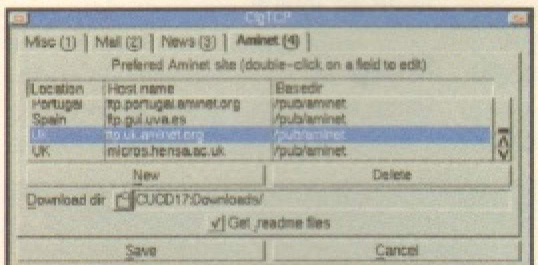
From coding tips to desktop publishing, our regular Workshop section continues to instruct you in an expert fashion. Sure to keep you busy for some time.



Imagine 4.0 p84



DTP p98



Wired World p94

Regulars

PART 12 Imagine 4.0

Taking your rendering to the next level involves putting real people into your work. John Kennedy can't find any real people, and so uses himself instead.

Have you ever wanted to add real people to your rendered scenes? As a spin off from our exploration of brushmaps, we can now develop a technique to add realistic people to your virtual stage, and what's more, we can even animate them.

To start with, we'll need some images to work with. This is where your ingenuity and budget come into play. If you are only dealing with a still image, then a single scanned image will do. However, if you are thinking of creating an animation, then you'll obviously need more than one image.

Grabbing a sequence of stills from video is one option, as is using a digital camera to grab a series of images. Both these require extra hardware I'm afraid, but there is not a great deal we can do about that.

ProGrab from Gordon Harwoods is relatively inexpensive and yet capable of excellent results, and if you advertise in your local paper you are bound to find a VIDI Amiga going cheap. You'll still need a video source, but most people have a relative they could borrow a video camera from.

In this example, we're making an assumption: that the overall outline of the person does not change from frame to frame. This is quite a big assumption to make, but it does simplify everything tremendously. It also works very well for a "talking head" animation.

If you do want to animate a person walking, then you'll need to perform certain steps for each individual frame.

Step 1

The first step is to make a mask. Using any image, trace around the background details and paint everything in white.

Now paint over the detail inside black. You should end up with a simple, two colour image like this. This will be our mask image. Save it as an IFF image.

Step 2

Using the mask, we can create an Imagine object onto which to map all the frames of our animation.



▲ Alter the viewpoint, and it's clearly obvious that your "people" are flat and lifeless. It's a neat little effect though...

In Imagine's Detail Editor there is an option "Convert IFF/ILBM...". When you load the mask image using this tool, Imagine will construct an object of the same shape as the black outline.

This process will occasionally cause Image to barf, but you can sometimes ignore the errors and still end up with a useable object. Use "Merge" on the object to solidify it a bit, and maybe apply the Smoothing tool to take off any rough edges.

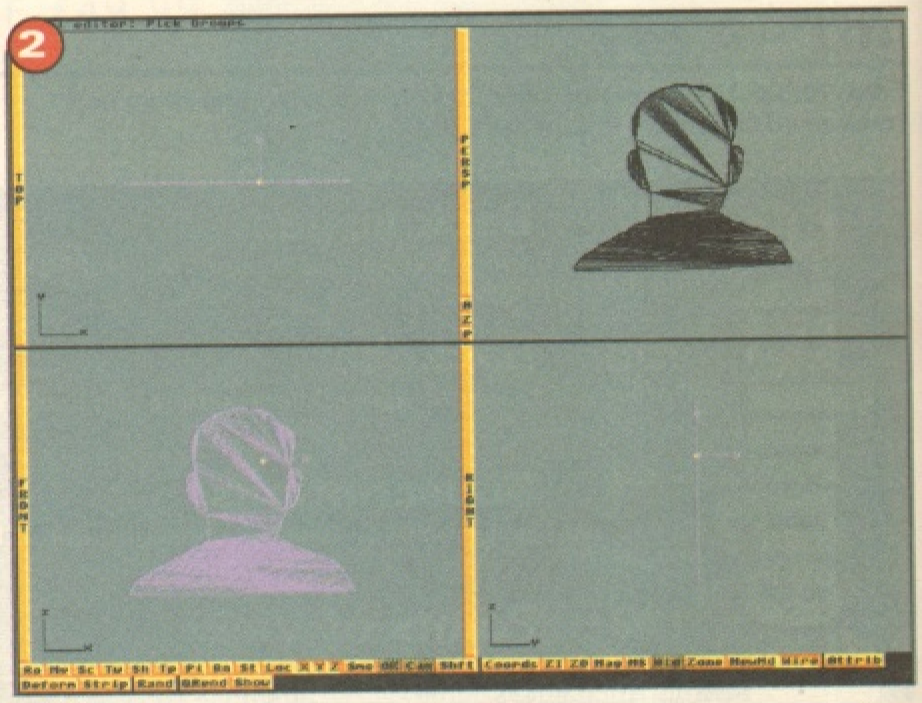
Step 3

Now we can apply our brush map. Forget about animation for the moment, and select the Attributes of the mask object.

Add a brushmap texture, and select the first image that's in the series of talking heads. This series should be all IFF format images, named as "head.0001", "head.0002" and so on and so forth.

Enter the filename "head" as the first image, and set the Max Sequence value to the number of head images.





Step 4
Unless you are incredibly lucky, the Imagine object and the brushmap image won't be perfectly matched, and you will need to move (and possibly scale) the brushmap to fit.

This is a very tricky process, and it's worth spending time getting it right. Use the Edit Axes button to alter the size and position of the brushmap in relation to the object. You should perform a Quickrender, move the map, perform another quickrender and so on.

Eventually you should end up with a match, and when rendered you should see the head image with no background.

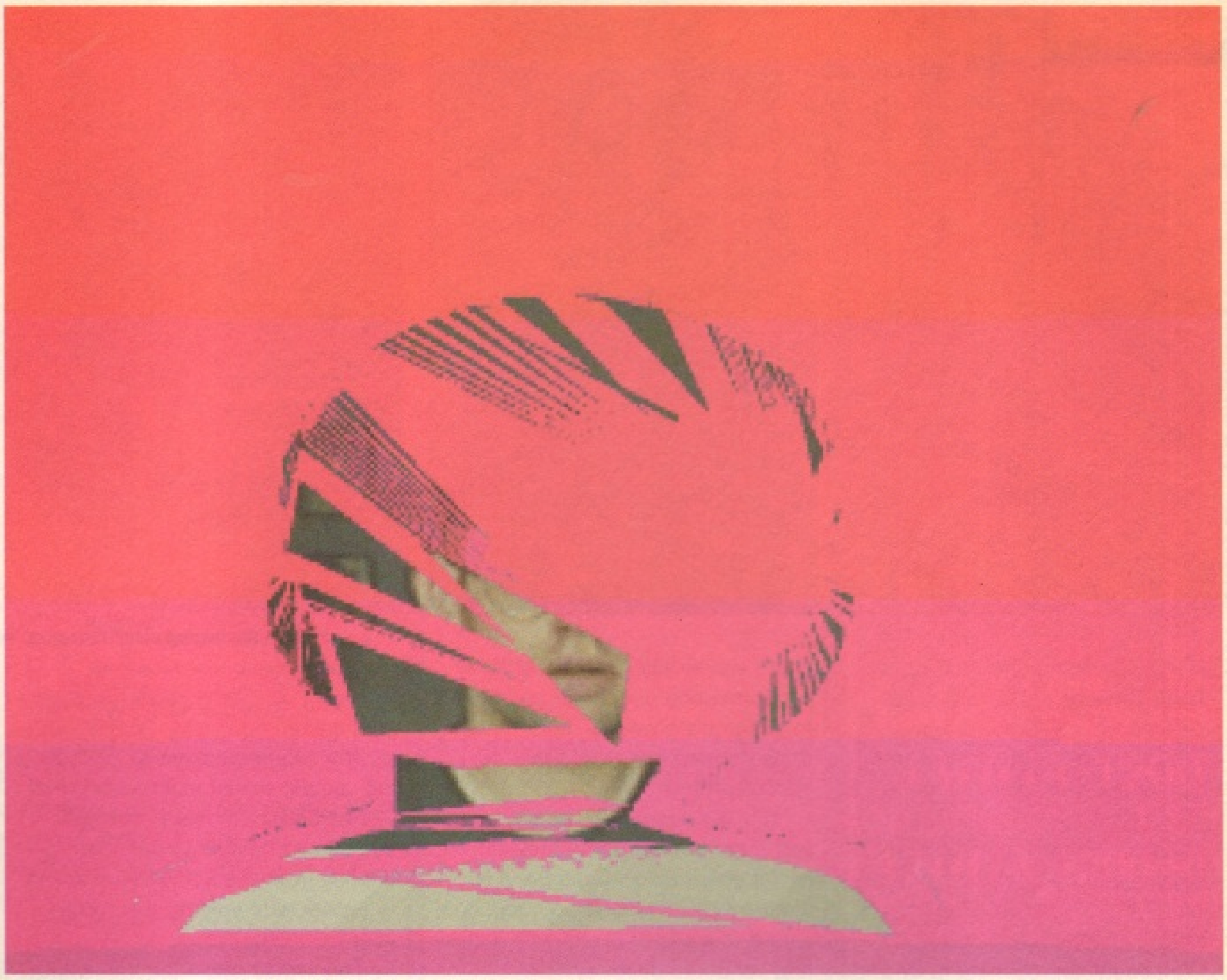
Step 5
Now you can save the object, and use it in the Stage Editor.

Make sure the camera is square on, and you are ready to render. It's probably a good idea to make the head object bright, as this will mean there is no shading.

After all, all the shading we need is included in the original brushmap.

Step 6
One render later, and you have a realistic (well, sort of) object to add interest to your scenes.

Why not combine it with your other objects, so that your cars have drivers and your spaceships pilots? Because we have created an object of the right size, rather than pasted an image onto a rectangle, even the shadows cast by the virtual person will be correct.



▲ Oh my poor head... all possible with Imagine's special effects.

Tips and tricks
Because we applied the brushmaps as a sequence, the object will render properly when we include it in an animation. However, sometimes you might want more control over the speed at which the frames change.

Instead of creating one object with multiple brushes, try creating multiple objects with one brushmap each. You can then use Imagine's built-in morphing ability to switch smoothly from one frame to another. This technique works very well when animating clouds and other organic patterns.

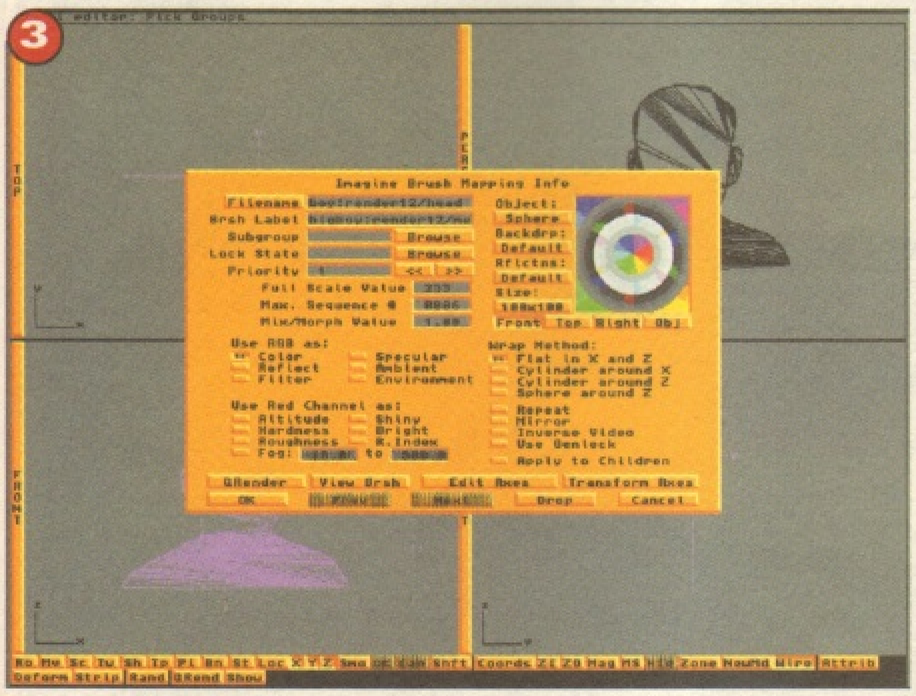
Unfortunately it also has weird consequences: apply it to two frames of a person blinking, and it appears that their eyelids turn transparent!

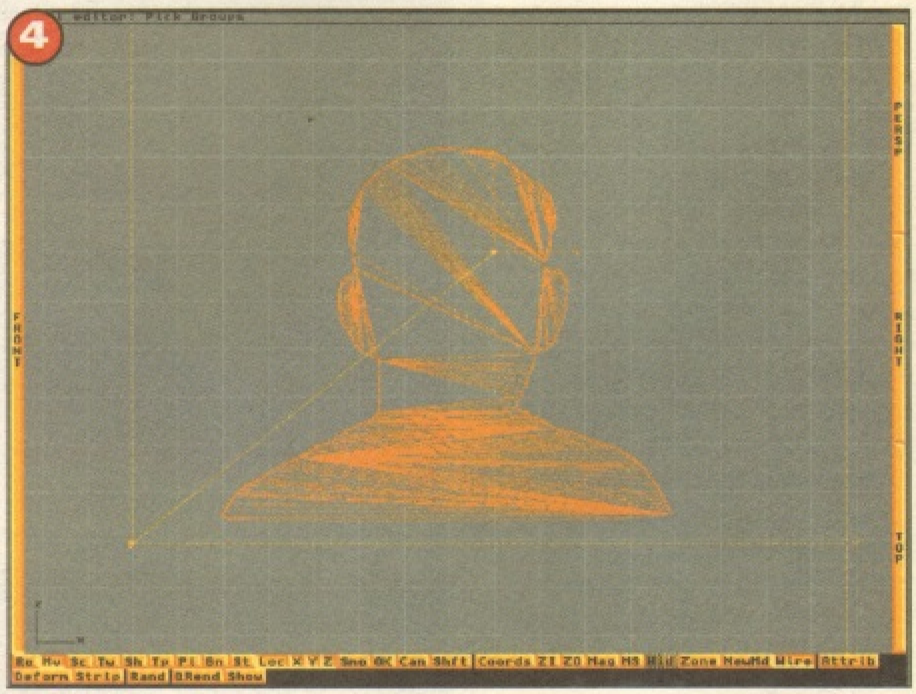
Animation limitations
Using a flat object like this in animation takes care.

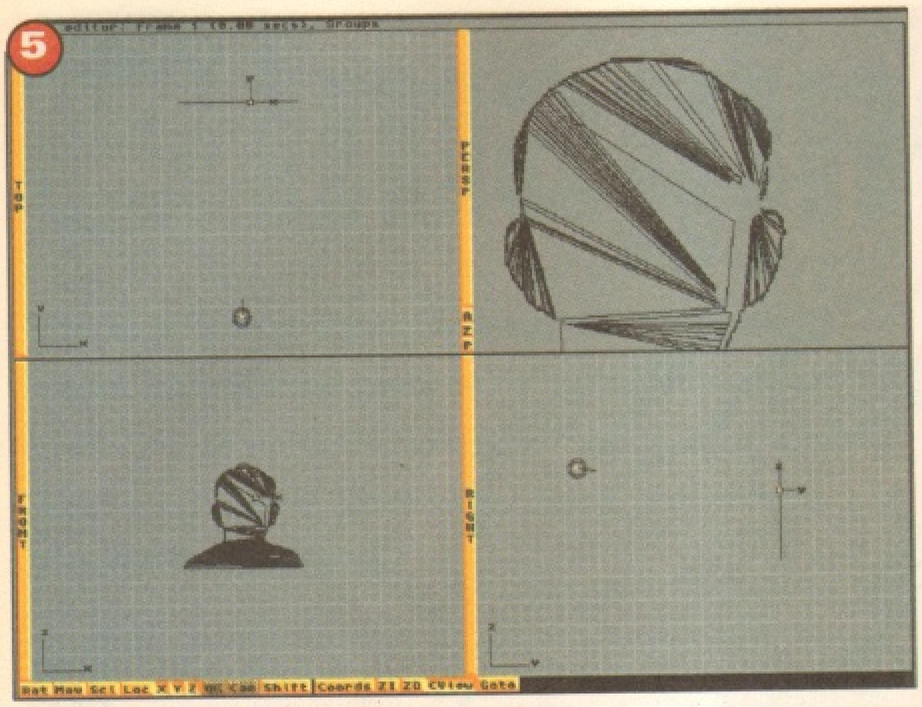
As the object is totally flat, any view other than completely front-on will betray its two dimensional nature. Sometimes you'll want this effect, other times you won't, and it will be hard work defining your objects so that they always face the camera.

Visit the Action editor and play with the Alignment tool, and you might find this makes the task slightly easier. However, if you want to create a solid, 3D talking head then you have a lot of work in front of you.

Creating the mesh for the head is a real challenge in itself, although the example Beethoven bust which came with many versions of Imagine makes a good starting point.









▲ A frame from the moving cloud sequence, as we've supplied on this month's CUCD coverdisk.

As for mapping a picture onto the 3D surface, well again, you have problems.

You really need the equivalent of a map of the person's face, not a front-on photograph. If you aren't squeamish, imagine unwrapping their face and placing in on a photocopier – that's the kind of image map you need.

You could approximate it, by photographing your model from many different angles. You could then cut out the central strip in each photograph and use that as the basis of the texture.

It would be time consuming and a laborious process – so I am currently trying to work out a way of automating it, and I'll let you know how I get on.

Effects

OK, admit it. You're all sick people. I know it, you know it. You want to apply special effects to the head object, don't you?

Like any other Imagine object, you can apply the deformation tools or the special animation effects to warp and shatter the object in unusual ways.

Of course, that was one of the first things I did. Here are some examples of how you can manipulate the object using Imagine's effects. The explosion and other effects are a little disappointing, as the original head object is not constructed from a regular mesh of facets.

This is due to the way the Convert IFF tool works, so there is little we can do about it. It's made worse because the brushmap does not appear to change with the object, which looks more than just a little odd.

That's not to say it's not worth experimenting of course, and thanks to Imagine's powerful deformation tools you can create all kinds of special effects.

You can even use a genlock and add them to your home movies: isn't it about time Auntie Beryl is attacked by a flying saucer, and converted to a pile of pixels with a carefully rendered deathray?

Coverdisk

Just as we promised you, this month on the CUCD coverdisk you will find a sequence of still images that you can use as your backdrop in Imagine.

The sequence consists of moving clouds, stored in a resolution of 320 by 256. With just a little luck you should be able to use them directly from the CD without having to bother with loading them onto your hard disk.

This would make them absolutely ideal for use as Global Brushmaps for example, which will provide a wonderful reflection in the windscreen of the car that you have rendered. ■

John Kennedy

Next month

Well it's been great fun playing around with this program, but unfortunately all good things must come to an end and next month it's going to be the last in the series of Imagine tutorials. In that lesson we'll be taking a good look at planning, designing and rendering a short film from beginning to end... Don't miss it!!



Amiga C Programming

PART 5

Windows, windows, windows and guess what... some more windows. This month it's all about handling multiple, dynamic windows.

This month we're going to bring our example a little closer to a real paint program. This involves quite a few changes to the last example of the previous tutorial, the most important of which is the separation of the drawing area and the tool gadgets. In a program like DPaint you have the drawing in one view and the drawing tools in another. To achieve this effect we're going to add a second window, put the gadgets in one of them and use the other solely for drawing.

Opening a second window is not a huge problem and, in fact, the code is just what you should expect by now. The really big changes are to the IDCMP message handler: the "WaitPort()" function can no longer be used because we have to wait for messages from more than one window. To do this we must delve a little deeper into the Amiga's message signalling mechanism.

Pass the Port

As ever, the complete examples are on the coverdisks, and we'll examine only the interesting bits. The first such snippet is the replacement for the "WaitPort()" from the earlier examples (see the outline in Example 1, taken from "multiwin0.c").

Instead of waiting for a message to arrive at a solitary message port (using "WaitPort()"), we need to create signal masks from both of our windows' IDCMP signal bits (using the bit-shift-left operator, "<"). We then combine these two masks (using the bit-wise OR operator, "|") to create a mask for use with "Wait()". This will make the program go to sleep until one (or both) of the signals is set, and when this happens the "Wait()" will return with a mask that indicates which signals were set. The resulting mask is stored in "gotsig", and this can be used with the masks for our windows (and the bit-wise AND operator, "&") to decide which window has messages that need to be handled (see the outline in Example 2).

Strictly speaking, it's not really necessary to check that "gotsig" indicates a port's signal has been set before trying to get messages from it, since "GetMsg()" will return "NULL" if there are no messages. But, signals can be used for more than just message ports (Control-C handling, for example), so this code serves as a good template for the general case.

The rest of the IDCMP handling code is pretty much the same as we've seen before, although it has now been separated into the two parts that relate to each window.

Message Port

A queue (or list) of messages, held in first-in, first-out (FIFO) order. When messages arrive at a message port (ie, when a program or part of the Operating System adds messages to the queue), a signal is set, which usually wakes up another program that is waiting to handle the messages.

No Front Ears

Next up is a purely cosmetic change: we'll make the drawing window look like it's the whole screen by removing the borders and decorations (window flag "WFLG_BORDERLESS") and make it sit permanently at the back ("WFLG_BACKDROP"). You ought to be pretty familiar with a window that you can change from being a normal window to a backdrop and borderless one: it's called Workbench. (You can swap between the two types using the Backdrop item on the Workbench menu.)

One benefit of using a borderless window is that we no longer need to worry about setting up a clipping region, since there are no borders to overwrite (ie., you can draw on the whole of the window). And if there's no clipping region to set, there's no need for the Layers library to be opened. So we can trim down the code a little.

The new second window will be kept as an ordinary bordered window to hold our gadgets. We'll also add a long-awaited title, both to this window (using the "WA_Title" tag) and the screen (using "SA_Title"). The next bit is then to do some (not



▲ With the tool bar and screen title...

Example 1

```
ULONG drawsig, toolsig, gotsig;
drawsig = 1 < drawwin->UserPort->mp_SigBit;
toolsig = 1 < toolwin->UserPort->mp_SigBit;
while(going)
{
  /* Wait for messages to arrive */
  gotsig = Wait(drawsig | toolsig);
  /* Rest of code... */
}
```

Example 2

```
/* Check messages from the drawing window first */
if(gotsig & drawsig)
{
 while(intuimsg = GT_GetIMsg(drawwin->UserPort))
 {
  /* ...Handling code... */

  /* Reply when finished with message */
  GT_ReplyIMsg(intuimsg);
 }
}
/* Now check messages from the tool window */
if(gotsig & toolsig)
{
 while(intuimsg = GT_GetIMsg(toolwin->UserPort))
 {
  /* ...Handling code... */

  /* Reply when finished with message */
  GT_ReplyIMsg(intuimsg);
 }
}
```

very clever) maths to make the tool window open right at the bottom of the screen (see Example 3). Notice that, as a small optimisation, we remember the title bar size from the gadget creation code in "offtop", which we have now made into a global variable.

So, what happens to that menu strip that we created last month? Well, it can safely be attached to both windows, so that is what we have done. The menu strip is shared, and we'll use this to our advantage in the next example.

For now, it just means that both windows will have the same menus, and so must both handle the "IDCMP_MENUPICK" message (and do the same things, unless you want to confuse the poor user!).

Try out the new example to get a feel for the way the parts are now working. You can move the tool window around to paint underneath it, but (at the moment) the screen title bar always covers the top of the drawing.

Example 3

```
/* The minimal height of our tool window */
int h = MYTOPGAP + offtop + scr->WBorBottom;
```

Example 4

```
int createAll()
{
 return openLibs() && openScr() &&
     createMenuStrip() && createGadgets() &&
     openToolWin() && openDrawWin();
}

void freeAll()
{
 closeDrawWin();
 closeToolWin();
 freeGadgets();
 freeMenuStrip();
 closeScr();
 closeLibs();
}
```

Dynamic Windows

In the first example, the close gadget on the tool window quits the program and there's no way to get a complete, unobstructed view of the drawing window. The second example, "multiwin1.c", remedies this and adds a new menu to 'turn off' the tool window and the screen title bar. This may seem like quite a small change, but if you look at the code you'll see that it's radically different.

To facilitate opening and closing the tool window while the program is still running (and the other window is open), we need to factor out the code for opening and closing the window. A style similar to the library opening and closing code would work, if we were to keep a record of the important resources (such as the windows) in global variables. However, it's generally bad practice to have a lot of global variables because any bit of code is able to change their values, and this can make it harder to debug your program.

In this case, using some global variables seems to be a reasonable trade off, and it's quite interesting to see how this style can be applied to all of the resource allocating code. (In fact, this will also enable us to do things like dynamically changing the screen, but we'll leave this for later tutorials.) Spend some time looking at the differences in this example, and pay particular attention to which variables are significant enough to make global.

The most interesting new part of this restructuring is initialisation and cleanup code (see Example 4). The boolean AND operator, "&&", used in "createAll()" will 'short-cut', which means that the functions will be called in turn until one of them returns "FALSE". In other words, "createAll()" will return "FALSE" as soon as the first function returns "FALSE", and it will only return "TRUE" if all of them return "TRUE". So, for example, the program will not try to open the tool window if the screen could not be opened.

On the other hand, the "freeAll()" function just de-allocates everything in the opposite order, where each de-allocation function is 'guarded' (it checks that there's something to de-allocate first!) and 'safe' (it sets the appropriate variables to "NULL" after doing the de-allocation, so that the de-allocation cannot be performed a second time, even if this function is called again accidentally).

Signal Mask

The general signal waiting function, "Wait()", can wait for a number of signals at once. These signals are specified to "Wait()" in a signal mask, where each signal is represented by a particular bit in the mask. Because a number of signals can be set concurrently, "Wait()" reports the relevant signals as a mask, too.

Message

A small package of data that can be passed between applications. As we've already seen, the Amiga's Intuition system uses messages to inform a window of things like gadget presses and mouse clicks.

Czech Marx

The remaining point of interest is the new Tool menu. This contains two check-mark, toggle items: Screen Bar and Tool Bar. Initially, both are checked, since the screen title bar and the tool window will both be active at first. The menu message handling code has been extended to deal with these messages, and in this case we are inter-

Example 5

```
case 2: /* Tools menu */
 switch(itemNumber)
 {
 case 0: /* Menu Bar */
  ShowTitle(scr, item->Flags & CHECKED);
  break;
 case 1: /* Tool Bar */
  /* Set state to indicate whether the tool window
should be open */
  opentw = (item->Flags & CHECKED);
  break;
 }
```

ested in remembering the menu item corresponding to each selection so we can extract the check value from the "Flags" element.

Because we have used the same menu strip with each window, the states of the checked items are shared, which does save us a fair amount of effort in keeping them synchronised!

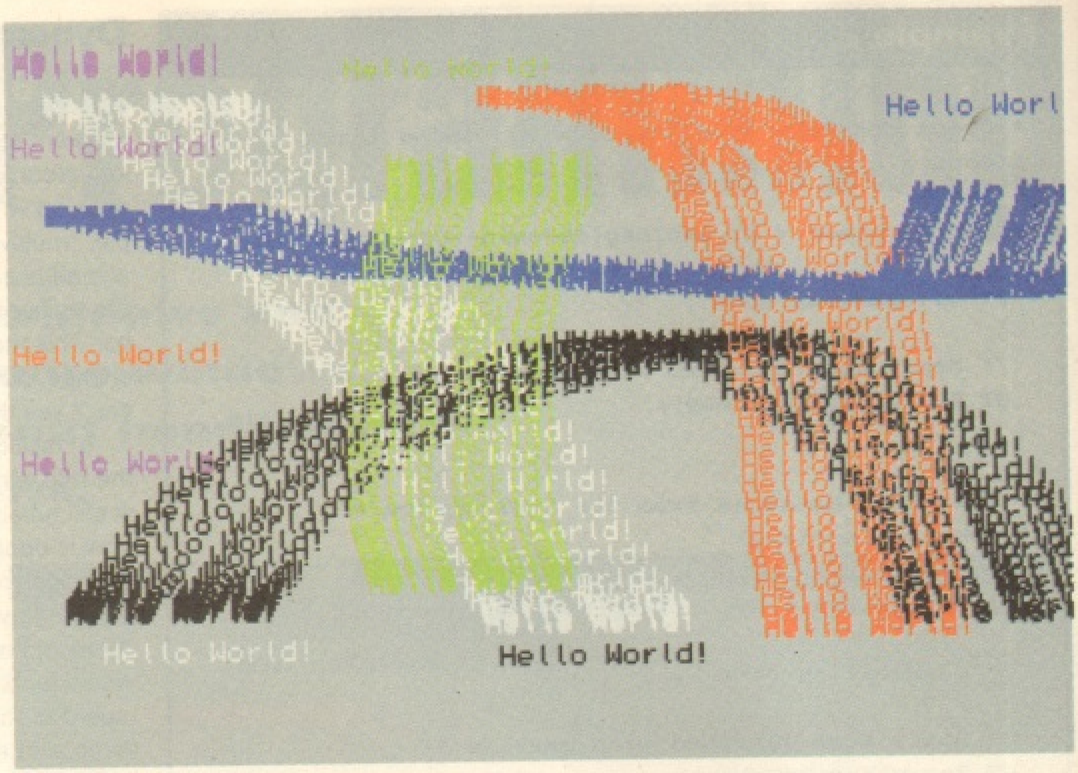
The "ShowTitle()" function turns a screen title bar on and off, and we'll use another global variable to record the user's request to close (or open) the tool window (see Example 5).

Signal

Part of the heart of the Amiga's multi-tasking mechanism. A signal is basically a flag that can be set or cleared. A program can go to 'sleep' and wait for a signal to be set (using "WaitPort()" or, more generally, "Wait()"). This frees up the CPU to do something else while the program is sleeping. When the signal becomes set (by some other program or the Operating System), the waiting program is woken up (i.e. the "WaitPort()" or "Wait()" returns) and the signal can be acted on.

We can't simply close the window during the message handling, because we haven't yet replied to the message and it might have come from the tool window's IDCMP. So, we must go to all this complexity of recording the close (or open) request and dealing with it later, once all the IDCMP messages have been handled.

Another complication comes from clicking on the close gadget of the tool window. We want this to close the tool window, but not end the program, so the menu strip must be updated to remove the check mark from the Tool Bar item (to keep it consistent). The "IDCMP_CLOSEWINDOW" code must therefore remove the menu strip from both of the windows, update it and then re-attach it. Luckily, "ResetMenuStrip()" is guaranteed to work if this is the only change we've made to the menu strip, so we don't have to cope with any failures at this point. One failure we must cope with, is not being able to fulfill a request to open the tool window. This is checked by the code that handles these requests, "checkToolWin()", at the end of the message handling loop. Fairly arbitrarily, the program is quit (by setting "going" to "FALSE") if the tool window cannot be opened again.



▲ ...and without them.

Thanks for the Fish

This month we've covered complicated stuff, but we've now got a decent framework. It's easy to see how it might be extended to a real paint program, but the concepts also apply to many kinds of programs. It's time to start dreaming about the application you want to create, and start trying things out.

Next month we'll move on to look at some useful libraries! ■

Jason Hulance

Next Month

CU AMIGA MAGAZINE

Open Your Mind!

with Andy McInery of Dex & Jonesey

Master of the banging house brigade, Andy McInery of Dex & Jonesey supplies a totally exclusive track for our CD and takes us through the process of remixing a classic trance tune for a major re-release, divulging tricks, techniques and secrets along the way. Essential reading for all musicians and music lovers.

Cologne Show News

The biggest Amiga show in the world, and this year it will be bigger and better than ever. With conferences sponsored by Gateway 2000, and major product launches from dozens of Amiga companies, this will be the most exciting show in years. If you can't be there, then do the next best thing and read our in depth report.

COMPUTER '97

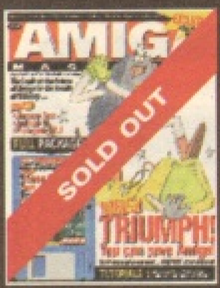


Haunted

We've been promised a good look at this giant multi CD adventure game from Alive media Software. Featuring some of the most impressive rendered graphics seen on the Amiga, this long awaited game is here at last. Prepare to be scared.

Back Issues

Looking for a specific Amiga article, game review, program, feature, tutorial, or even news story? Your search could well be over...



AUGUST 1996
Disks: EasyCalc (full program) & Valhalla III demo.
Features: The future of the Amiga with VISCorp, the new PIOS machine and the second part of the Euroscene feature.
Inside: Siamese Twin, Photogenics 2.0, Valhalla III and Tin Toy reviewed.



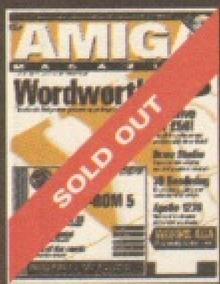
SEPTEMBER 1996
Disks: Vista Lite (full program) & a demo of Brian Lara Cricket '96
Features: The Aminet exposed. All 6 gigabytes!
Inside: Final Writer 5, OctaMED SoundStudio, Atapi CD-Rom drive. Plus an exclusive preview of the new AGA Worms.



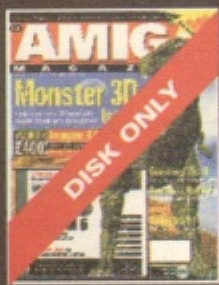
OCTOBER 1996
Disks: Upper Disk Tools: ideal for sorting out those awkward disks and drives!
Features: The Amiga in America, Net software...
Inside: The speed issue, or something. Three top accelerators, a TCP/IP stack comparison & Capital Punishment



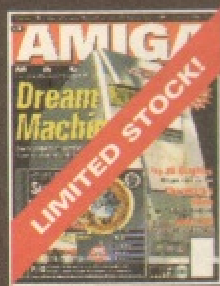
NOVEMBER 1996
Disks: XCAD 2000 - The premier 3D CAD package, plus Chaos Engine 2. CD-ROM or floppy edition
Features: Palmtop Amiga-Psion link-up
Inside: Opus 5.5, Delfina DSP sound card, Web Browser War, Alfa Quatro, CD-ROM writer



DECEMBER 1996
Disks: Wordworth 3.1 SE, Worms demo. CD-ROM or floppy edition
Features: CD-ROM drive for £50! Amiga and PC games on CD-ROM
Inside: Draw Studio, Apollo 1230, Storm C, Siamese RTG system, Tiny Troops



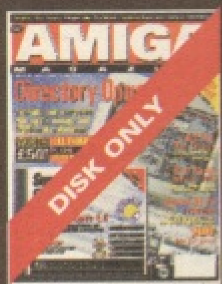
JANUARY 1997
Disks: CD-ROM or floppy edition, Imagine 4.0, Underwater Capers, plus over 100Mb of Imagine extras on CD
Features: Get a job in graphics, plus Imagine 4.0
Inside: Art Effect, PPaint 7, SWOS 96-97, Fighting Spirit, Chaos Engine 2 ...



FEBRUARY 1997
Disks: Design Works, Minskies Furballs plus Worms – the Director's Cut extras and Imagine extras on the CD.
Features: The new A/Box
Inside: Wordworth 6 Office, Turbo Calc, Minskies Furballs, Bograts reviewed.



MARCH 1997
Disks: OctaMED SoundStudio (full program) Chaos Engine 2, Chaos Engine 2 AGA demo
Features: Turn your Amiga into a pro studio. Printers: problems solved.
Inside: Quickcam, Cybervision 3D, SMD 100, JetPilot reviewed



APRIL 1997
Disks: Directory Opus 5.11 (full program). Tiny Troops demo
Features: Build your own Tower Amiga Part 1. The 50 best Amiga Games
Inside: Massive Cinema 4D 3.0 Review, new DTP series, ProGrab Sampler, Teletext Decoder



MAY 1997
Disks: Image Studio (full program) Kargon RPG, exclusive clipart on CD
Features: The Future's Bright: Gateway buys Amiga! Tower Amiga Part 2.
Inside: PageStream 3.2, Big Red Adventure, LightWave 5, Epson Stylus 600...



JUNE 1997
Disks: Pro Page 4.1 (full program) MPEGA 2.4, Sysinspector, The Sun game & more!
Features: CD-R for Amiga – cut your own CDs for a few hundred pounds plus Tower Amiga Part 3: Zorro.
Inside: Turbo Print 5, Net Connect, Cybervision...



JULY 1997
Disks: Free Net sofware, Quarterback 6.1 inc QB tools, Big Red Adventure
Features: Total Internet Solution, the history of the Amiga & a look at Amiga artist, Eric Schwartz.
Inside: Final Writer '97, Siamese RTG 2.0, Burn It...



AUGUST 1997
Disks: Dogfight, Turbo Print 5 Lite, Storm C Compiler
Features: Power PC is coming, Crack the Code, plus Power Gaming
Inside: Cinema 4D, Voyager NG 2.90, IBrowse 1.12 & Tower add-ons...



SEPTEMBER 1997
Disks: Sixth Sense Investigations, Vista Pro, MakePath, GeoMorph
Features: New Faces of Amiga Gaming, Amiga: The Next Generation, DIY Sound Card
Inside: Art Affect 2, Art Studio 2.5, Micronik genlocks, Flying High



OCTOBER 1997
Disks: TFX, TB 303 Emulator, Virus Z, Video Easel, Visual Prefs
Features: TFX: Quickstart Guide/Techniques & Tips etc., Suzanne: The Portable Amiga
Inside: Fusion Mac Emulator, Civilization, Mk II EZ Tower, Storm C



NOVEMBER 1997
Disks: Draw Studio 2 Lite, AIR Link Software
Features: D.I.Y. AIR Link, Hydra A1200 Ethernet, Mac gaming, Sensible Golf
Inside: OxyPatcher, TFX Tips, Visual IFX, Envoy 2.0, Epson Stylus Photo, Street Racer

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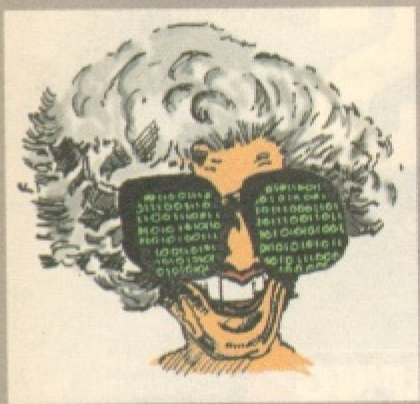
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Surf's Up!

All the latest Amiga Internet exclusives for you including news of a possible ICQ port to the Amiga. ICQ? Read on.

Net God speaks

Stating the obvious, a great strength of the Amiga has always been the sense of community. It's impressive to see the bias the Amiga in comms has taken towards community based efforts. Firstly how can one not be dead impressed with Amiga users cracking the top 10 in RC5 stats? Hundreds of Amiga users bending hundreds of computers to the greater task of cracking the secret key in the Bovine effort.

Our news this month also includes the expansion of the Amiga specific IRC network, Amiganet, which is going strong. Via Amiganet Amiga users the world over get together and talk about Life, the Amiga and Everything without fear of invasion by troublemakers from other platforms.

So it's timely that the ultimate community aid, Mirabilis' ICQ system, looks set to burst onto the Amiga. Now you'll know when your Amiga buddies are online, you can ask them what they're up to, chat and swap files without consciously launching an IRC client to check if they're online. It may have started on the PC but ICQ seems designed for the Amiga community. Group hug time. :)

Amiganet shuffle

Amiganet is a new IRC network which is run specifically for Amiga. The result is that it tends to 'net–split' less often than the big networks like IRCnet and EFnet.

The UK Amiganet server used to be irc.pureamiga.co.uk but this has sinced moved to another network. The correct Amiganet server is now stayfree.uk.amiganet.org.

Here's a complete list of Amiganet servers, which are all operating on port 6667 with the main channel being called #Amiga.

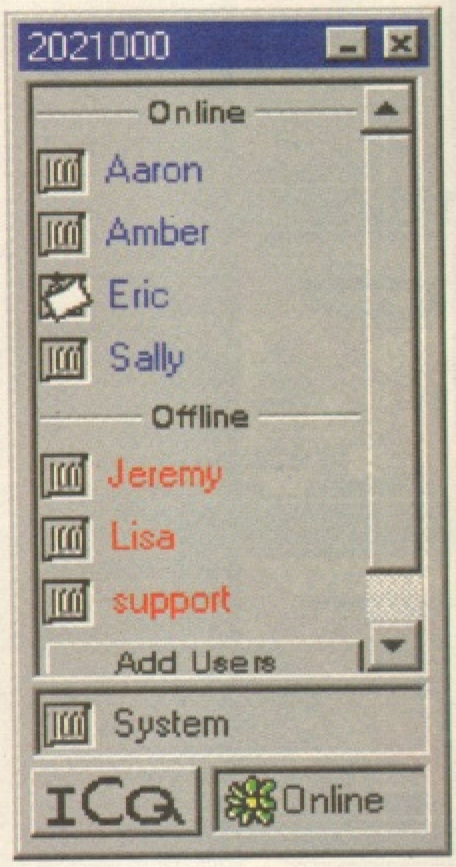
- **thule.no.amiganet.org (Norway)**
- **whiterose.us.amiganet.org (USA)**
- **kth.se.amiganet.org (Sweden)**
- **fastlane.au.amiganet.org (AU)**
- **linux.us.amiganet.org (USA)**
- **stayfree.uk.amiganet.org (UK)**

ICQ Amiga port

ICQ from Mirabilis, is a multiplatform real–time contact, chat and message based system.

It already boasts millions of users and the service itself is free at the current time. ICQ runs when your Internet connection is active and reports on the status of other select ICQ users as to whether they're online at the same time or not. Messages and/or files can be sent instantly or via the Mirabilis server. It's possible to display your status and message via a web page and more.

ICQ gets the thumbs up from CU Amiga and the good news is that an Amiga port is on the cards. Drop into **http://www.mcmedia.com.au/amigaicq** and fill it out to express your interest in the port.

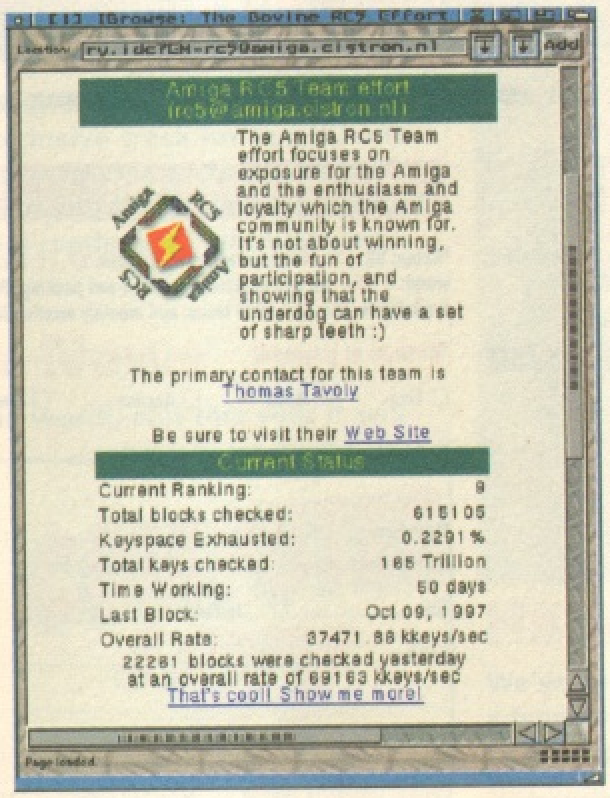


Amiga RC5 effort cracks top 10

The Amiga RC5 cracking effort under the Bovine collective banner has rocketed up the charts to go crashing into the top 10 as we went to press.

This is an extraordinary effort by literally thousands of Amiga users who have access to serious computing power be they Amigas or not. Current rate of cracking is in the region of 72 Mega keys per second.

That equates to an equivalent computing power of 600 50MHz 68060 machines working on the problem day and night.



If you would like to view the current statistics, check **http://rc5.distributed.net** or join in the RC5 cracking effort yourself by going to **http://www.cistron.nl/~ttavoly/rc5/**

Sun takes Microsoft to court over Java

Sun has taken the step of filing against Microsoft, citing a breach of contract and various other allegations in their legal action. The suit contends; "Rather than comply with its contractual obligations, the defendant Microsoft has instead embarked on a deliberate course of conduct in an attempt to fragment the standardised application programming environment established by the Java technology; to break the cross–platform compatibility of the Java programming environment; and to implement the Java technology in a manner calculated to cause software developers to create programs that will operate only on platforms that use Microsoft's Win32–based operating systems and not on any other systems platform or browser."

This piece of information has arrived at a time when Java remains in development for the Amiga browsers via Haage and Partner's Merapi project. ■

Mat Bettinson



Surf of the Month

This month we chase down the home pages for each of the programs in the Freeware Roundup (page 32).

URL's

http://friesian.steeds.com/reznor-entertainment/amiga.html
Reznor Entertainment Amiga Magazine
http://www.clickboom.com
Click BOOM home page
http://www.amiganet.org/NewIcons/
New Icons home page
http://www.cs.tu-berlin.de/~zerocom/alien-design.html
MCP home page
http://linux.us.amiganet.org/cstar
Cstars MPEG audio ports home page
http://www.yam.ch
The official YAM support page

Sometimes it's amusing the sites you run across on the web for how sad they are. One chap excitedly repeated on IRC that Reznor Entertainment's site had exclusive news of Tomb Raider on the Amiga.

Checking it out, it's your typical unsubstantiated rumour fodder, a prize example of its sort. The authors can't even figure out how to make a link to Click Boom let alone get the URL correct. On that note, I chuckle all the way to Click Boom themselves.

Interestingly, for a company devoted to Amiga users, their web site sprinkles PC only Javascript copiously through it. Fortunately it works anyway and pleasantly I found that they had online ordering for Click Boom games too. The whole site looks fantastic if a little convoluted and graphics heavy.

The on-line ordering is full featured with currency conversion but for some reason they don't think listing the International shipping costs is important.

In theme from our Freeware round up this month, I decided to check out how many of them had web pages. First the New Icons can be found on the Team New Icons home page.

This is an excellent demo of what the icon set looks like and has plenty of downloads from NI4 to all of the available icon sets. It uses PNG images throughout so a datatype or Voyager-NG will be needed to view them. MCP also has a web page at the author's, Alien Design, home page.

Unfortunately there's not a lot to see, very little support files, tips and such forth so it's a bit under utilised. It does always have the latest version often ahead of the Aminet though. Sadly there's no MPEGA/SongPlayer web site from Stephane Tavenard (someone should volunteer to make one?) but the Aussie Cstar makes it his business to port Unix MPEG audio Layer III players and encoders.

You can obtain the latest Cstarware on his home page. YAM does rather better on the web with the home page being crammed to the gills with support files.

The site is exceptionally well designed and you can find full details about YAM, a FAQ, screenshots, a file archive and more. YAM certainly does seem to look like it is the best supported E-mail client in this regard.

There's also sketchy details on the upcoming YAM 2.0 due around Christmas time. ■

Mat Bettinson



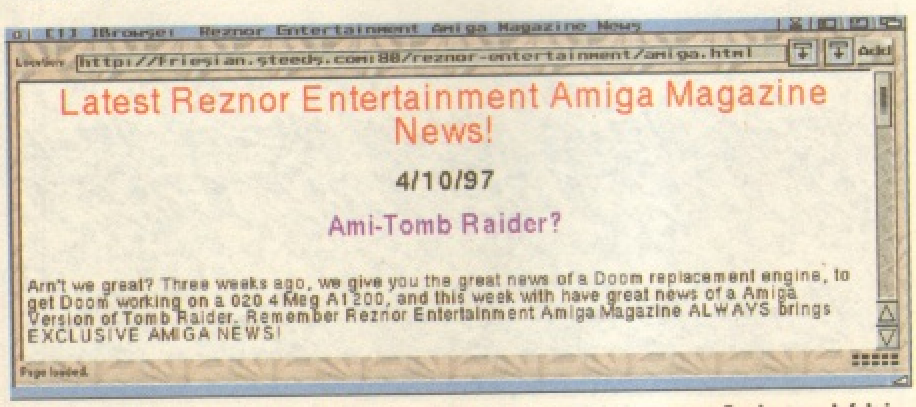
▲ The case study of the perfect support site. This time it's YAM – Yet Another Mailer.



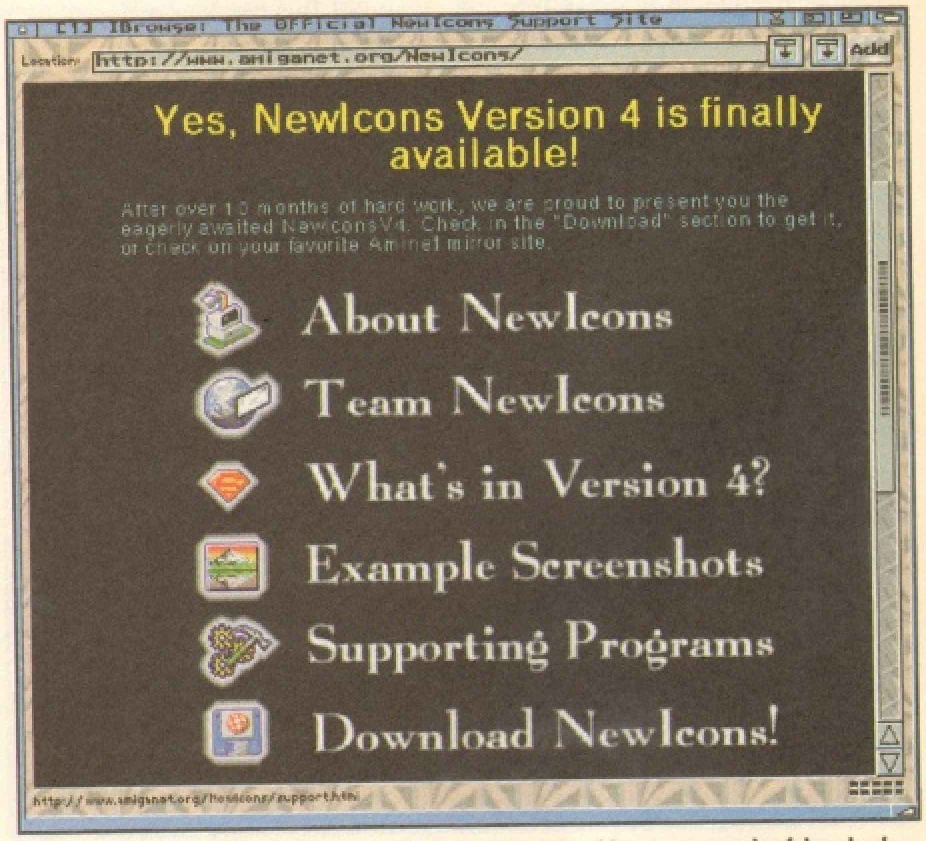
▲ Click Boom's Javascript laden site. Fortunately it works anyway.



▲ Black screens and rendered logos are in vogue. This time the MCP home page.

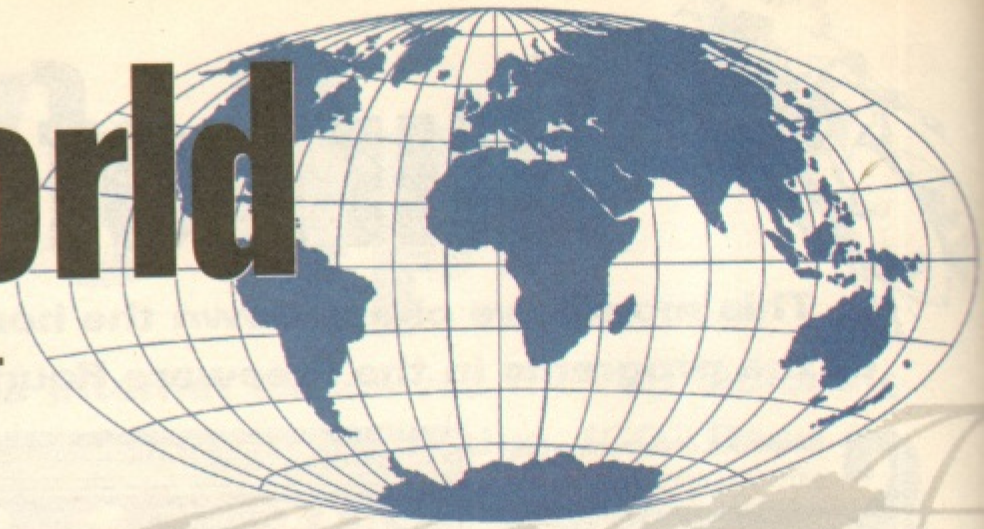


▲ What's the Internet good for if it isn't good old unsubstantiated rumours. For just such fabrications and falsehoods, the Reznor Entertainment site can't be beat.



▲ The New Icons 4 home page is attractive, well designed and has a cornucopia of downloads.

Wired World



Thor 2.5, the best mail and news reader just got better. Powerful though it is, many people find it daunting at first. Hopefully, things will become a lot clearer in the next couple of pages.

Thor is a combined mail and news reader intended for use with a wide range of message formats, including Internet, Fidonet and various BBS systems. Thor uses a hierarchy of systems and conferences. A system is used for a particular type of message, so you would have one for Internet, one for Fidonet and one for each BBS you use. Most Internet users use a single system, unless they use more than one ISP. A conference is a message area within a system, and can be a newsgroup, mailing list or general E-mail folder.

Within this setup, almost everything is configurable, but most things can be left at their defaults for initial use. It is this level of configurability, combined with terminology that is sometimes unfamiliar to Internet users, that makes Thor appear more daunting than it really is.

Installation and setup

The first thing to do is install Thor on your hard drive. All the files you need are in CUCD17:CUCD/Magazine/WiredWorld/Thor. You cannot install direct from the CD so copy this directory to somewhere temporary on your hard drive (or RAM:)

The installation process is fairly straightforward, and also covers configuration of Thor to work with your ISP and account. When asked if you want to install the Internet modules, answer Yes and choose the TCP and UUCP modules to install. Select Yes when asked if you want to configure your TCP information. If you use SMTP mail (such as with Demon) you should choose UUMail: for the download directory.

Now choose a name for your Internet system. It can be called whatever you like, but the default of Internet is as good a name as any, unless you want to use multiple systems for multiple ISPs. The installer will now start Thor's TCP configuration program, to allow you to set up the account details for your ISP. This has four pages, selected by tabs.

Enter your E-mail address and real name on the first page, the other items may be ignored for now.

The second page contains the settings for your E-mail account. If your ISP uses separate machines for sending and receiving mail, untick the Use Mailserver box and enter the address used for sending mail, such as send.mail.u-net.com or post.demon.co.uk. If your mail account is the same as the part of your address before the @ symbol, you needn't enter a login name, Thor extracts it from your mail address. Wirenet and Demon users should enter their hostname here. Finally, untick the password box and type your password, or else you'll have to give it whenever checking for mail.

Most people find default settings on the News page fine, so just give the name of your news server. Later on experiment with the number of sockets used for news collection (to see which is fastest) but leave it at 4 for now. The Aminet page is for Thor's ftp download facility (more on that later). Choose the site best for you and specify which directory the downloads should be saved in. Finally, click on Save. Once the installation is complete, start Thor.

First time you'll get a warning about the Global configuration, click OK, then Global and then save. Now close the configuration window, and select your system. Click on next and you'll see an introductory message.

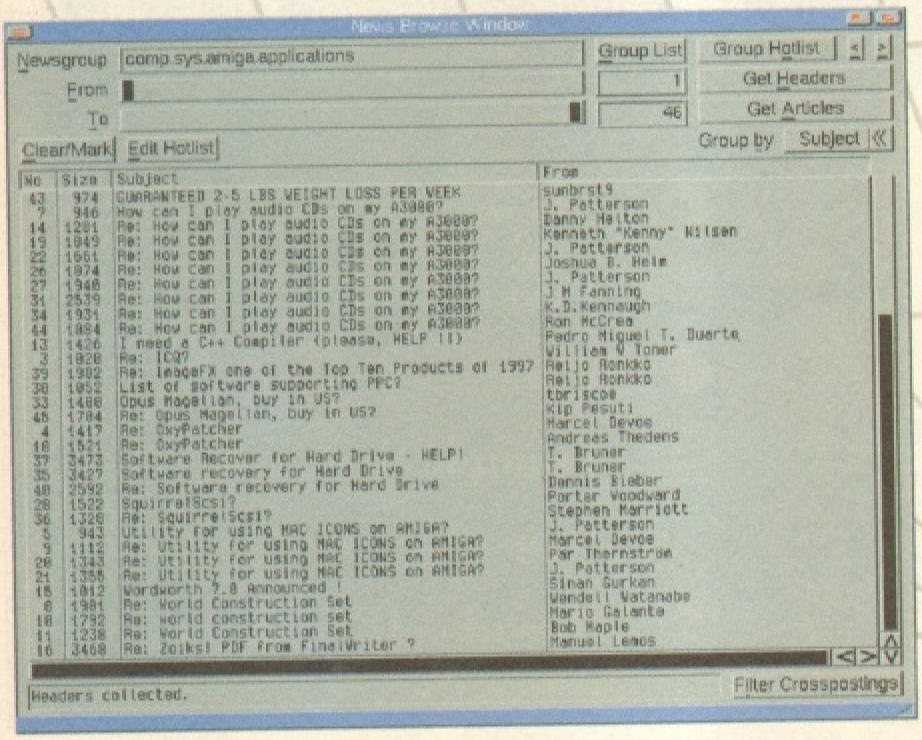
Where to get Thor...

If you don't have the CD, you can get the files from the comm/thor directory of Aminet. The ones you need are:

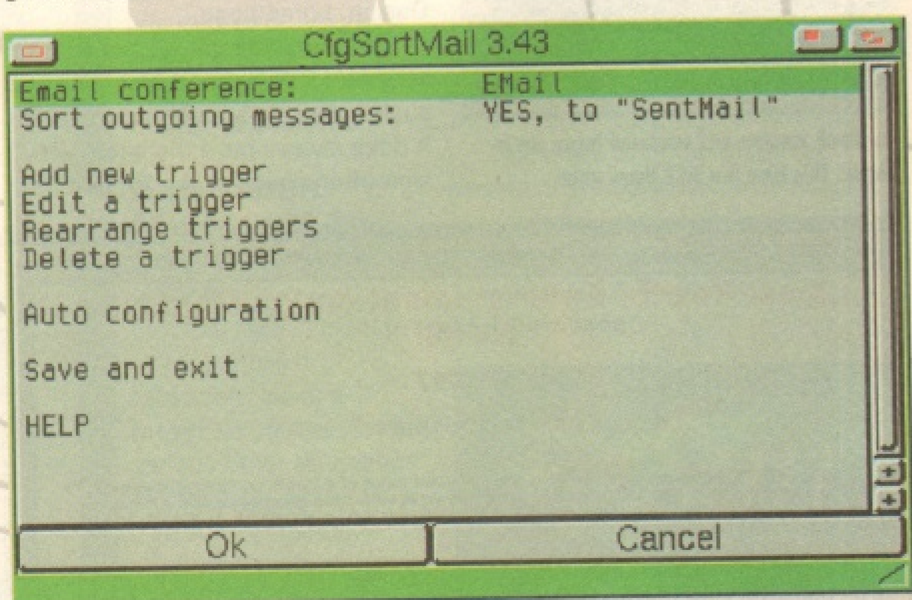
`thor25_main.lha`-this contains Thor itself
`thor25_inet.lha`-the internet modules
`thor25_arexx.lha`-extra arexx scripts for Thor-recommended

Also available is `thor25_bbs.lha`, which contains the modules for BBS, Fidonet, etc. The 25 in the filenames represents the current version, 2.5, this may have changed by the time you read this.

Unarc the main archive and copy the inet and arexx archives into the Thor directory this creates.



▲ **Using the news browser.**



▲ **CfgSortMail ready to automatically set up a mail sorting trigger.**

Useful utilities

There are some useful utility programs in the Extras directory on the CD, these are also available from the comm/thor directory of Aminet.
AminetParse: Fast adding of Aminet INDEX and RECENT files.
MLManager: Automatic subscribing to mailing lists, creating a SortMail trigger at the same time.
NewsGroupEd: Extra features for managing a newsgroup list.

Using Thor

Right, now it's installed let's try some mail and news. Click on the Write button in the toolbar, type in the name, address and subject and make sure the conference gadget says Email, click on OK and the editor opens. Write your message, save it and quit the editor. Now select Join Conf from the Event commands menu, you don't have a full list of newsgroups in the system yet, so type alt.sys.amiga.thor in the string gadget at the bottom of the requester. Select Get Conflist from the Event Commands menu to download your ISP's full newsgroup list.

You don't need Thor running when you go online, so you can either quit or iconify it now. All Internet online actions are handled from a separate program, ConnectTHOR, start this up and then go online.

The first four buttons are self-explanatory, Config TCP starts up the configuration program you used to set the server information during installation and Browse News fires up the online newsgroup browser.

Restart or un-iconify Thor and you'll see the messages you've just downloaded. The first thing you'll want to do is set Thor up to suit your way of working. There are three main windows used when reading messages, open the Conflist and Msglist from the Windows menu. If you use a 640x256 screen you'll find things a bit cramped, so it's best to only open these when needed, otherwise, position the three windows how you like. Now select the Configuration/Visual Option menu item, the Save Global button saves the position and status of every window, so you can ensure closed windows open wherever you want them to. While you're here, turn on Colour quote, Double Quote, Style Tags. You can also set how Thor highlights URLs and the action taken when you click on one.

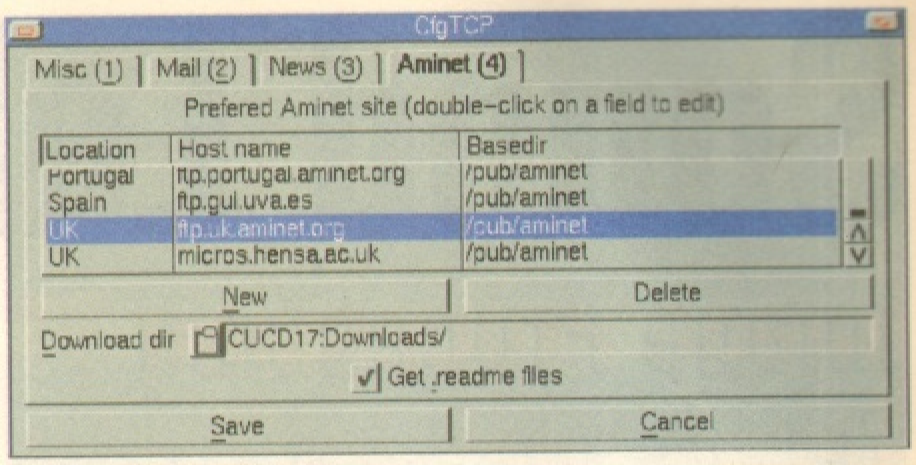
Mail sorting

Because of the way Thor treats E-mail and newsgroups similarly, it's easy to treat mailing lists in the same way as newsgroups. There are powerful sorting procedures applied to all mail as it is imported, you can set up triggers for each mailing list with the ARexx script CfgSortMail.thor. Make sure a message intended for the mailing list is displayed in the main window, start up CfgSortMail.thor and select Auto configuration. You will be asked for a name for the mailing list and a trigger will be created using the information in the current message.

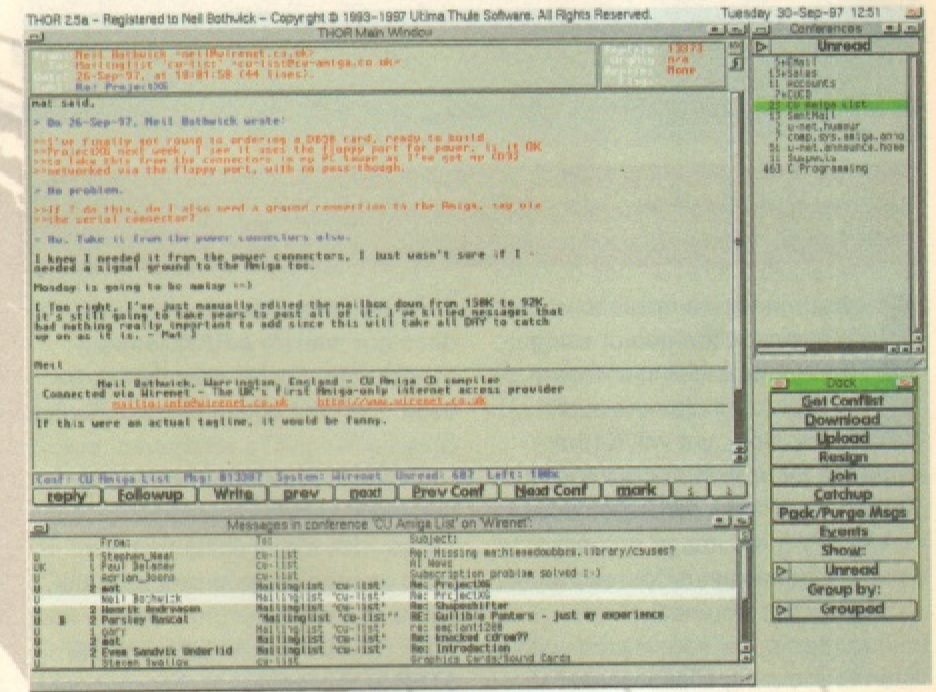
FTP

The idea of building FTP into a mail and news program may seem a little strange at first, but it turns out to be extremely useful. If you import the Aminet index into Thor's file database, you can subscribe to the Aminet mailing list and new files can be automatically added to the database via a SortMail trigger. The new files each day can also be displayed in a window, so you only need to click on a file and it will be marked for download. I find this incredibly useful for collecting software for the CUCDs, I scan the NewFiles window each morning and click on anything I think may be suitable. There's no need to go navigating Aminet's directories with an FTP program, the whole thing is done automatically.

You first need to set up the file database. Download the latest INDEX file from Aminet, and use AminetParse to import it. There is an ARexx script to do this, but



▲ **ConnectTHOR after using Do All.**



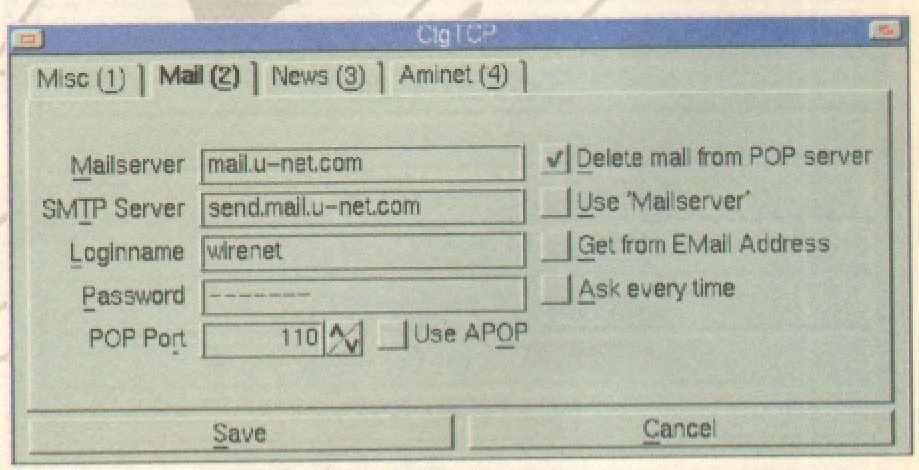
▲ **My Thor setup, fancy backdrops are possible, but turned off for maximum readability.**

AminetParse is many times faster, and is included in the Extras drawer on the CD. Copy Aminet Parse to Thor's bin directory and AddAminet.thor to Thor's rexx directory. Then execute AddAminet.thor from the ARexx menu.

If you change your mind about a mail you've written, open the Events Editor from the Windows menu, this shows a list of all queued mail, news and ftp events. You can edit and delete events, or freeze them until later (useful if you want to delay large FTP downloads until the evening or weekend). There's many options to configure, but defaults are a good starting point. Look in the various configuration windows to see what's available, context-sensitive help is available from the HELP key. Remember the Browse News button in ConnectThor? It's for online newsgroup browsing and is ideal if you want to grab a selection of messages, rather than a full feed, or download a specific article.

We've only scratched the surface of what is possible with Thor, so look at some of the ARexx script to see what else is possible, and read Thor.guide and subscribe to the Thor mailing list also. ■

Neil Bothwick



▲ **Setting up E-mail parameters during installation.**

Online Thor resources

There is a support mailing list, send a mail to majordomo@thule.no with "subscribe thor-ml" in the body of the message.
The Thor web site is at http://www.thule.no/thor.
Program updates are available from the web site or by ftp from ftp://ftp.thule.no/pub/amiga and the comm/thor directory of any Aminet site.

Sound Lab

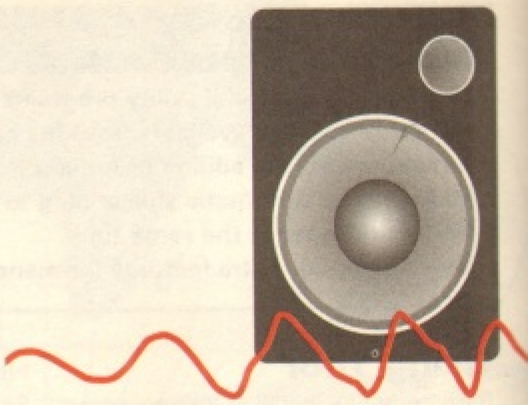


Image Processing Techniques for Audio

PART 2

What... use an image processor to add effects to your audio samples? Well, anything's possible you know.

Requires: SOX and Play16 (not included) + everything in the SongClips, Sounds and Sounds-Processed directories (included).

Last month we introduced the unusual technique of using image processing software as a tool to manipulate audio data. Now, we will further apply the technique to create some interesting effects. We'll also take a look at using the image processor to generate new sounds from scratch.

To hear the potential of this unique method of sound processing, listen to the song clips included in the SongClips/ sub-directory.

First, a quick recap of the processing method covered last month:

STEP 1: Preparing the audio file.

To load a sound file into image processing software we first need to convert it to a format common to both audio and image data: Raw. This can be done simply with a program like SOX:

```
SOX Piano.iff Piano.raw
```

STEP 2: Loading the audio file.

If the image processing software does not contain a RAW loader module, the Sculpt module can be used. For 8-bit audio files use Sculpt Grey.

The loader will prompt you for the width and height to use for the image. Use dimensions that are large enough to accommodate the entire audio file:

WIDTH * HEIGHT = RAW BYTES.

STEP 3: Processing the loaded data.

Perform whatever image processing functions you like on the loaded sound.

STEP 4: Saving the data.

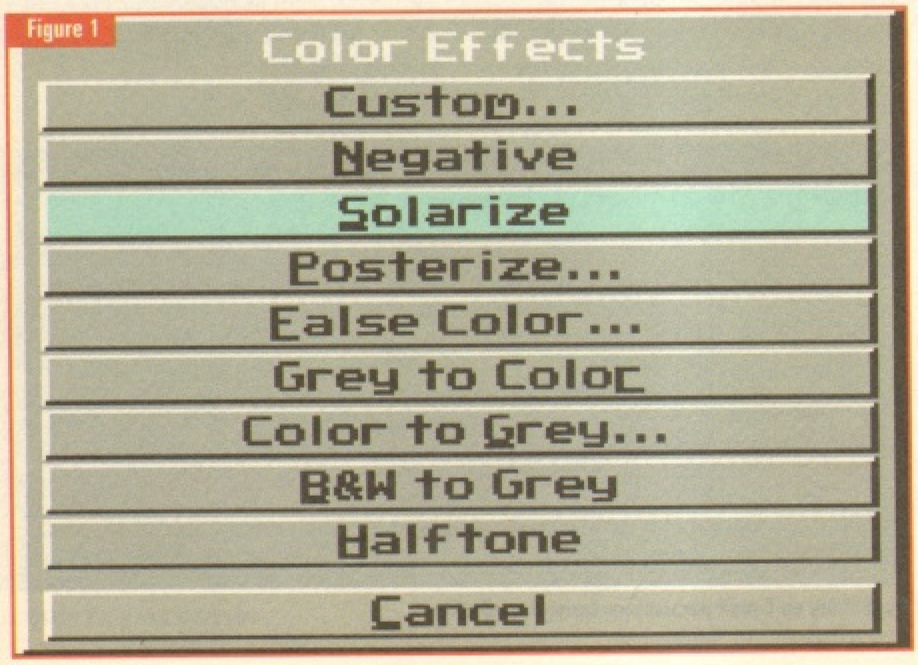
If provided, save using a Raw saver module, otherwise use a Sculpt module.

STEP 5: Listening to the modified sound.

To hear the raw sound, use a program such as Play16 and indicate the frequency to play back the sound at:

```
Play16 FREQ=16780 Piano.raw
```

Figure 1



Tutorial – Part 2

For the following tutorial, we will again use ImageFX 1.52 from the coverdisk of CU-Amiga – June 1995 to do the data manipulation.

However, the methods described here can be easily applied to most image processing programs. For audio playback and audio format conversion we have included Play16 and SOX, respectively, in the SoundLab directory.

Also in the Sounds/ sub-directory we have included some sounds to experiment with. In the Sounds-Processed/ directory you will find some examples of these sounds after having been processed with ImageFX using the methods that are described here.

Solarize

As with most of these processes, the effects of the data manipulation can be very different with different sounds. The solarize image effect is a good example of a process that can have very different results.

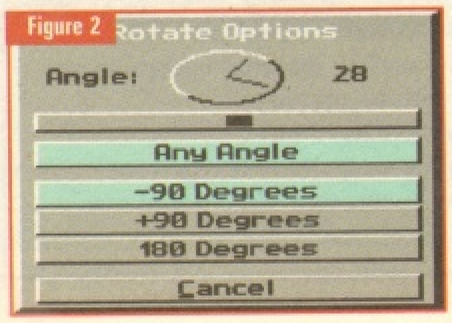
Load the Sounds/Piano.raw sound using a width of 300 and height of 289. From the toolbox, select Color and then Solarize (Figure 1). This is a preset function so it does not have any options. Then save the sound as Piano-Solarize.raw and listen to it with:

```
Play16 FREQ=16780 Piano-
Solarize.raw
```

The effect is not drastic but makes the piano sound like it is swarming with noisy bees. Compare it to the original Piano.raw sound:

```
Play16 FREQ=16780
Sounds/Piano.raw
```

Figure 2



Load the Sounds/Thunder.raw sound using a width of 250 and height of 281. Perform the same solarize function and save the result as Thunder-Solarize.raw. Listen and compare it to the original:

```
Play16 FREQ=16780 Thunder-
Solarize.raw
Play16 FREQ=16780
Sounds/Thunder.raw
```

The effect here is very much like a low end audio filter. To hear a more obvious example of this filtering effect, perform the solarize function on the Sounds/Sine.raw sound. Load it using a width of 256 and height of 256.

Perform the solarize and save it as Sine-Solarize.raw. The low end filtering is very obvious with this sound. Listen and compare with:

```
Play16 FREQ=9600 Sine-
Solarize.raw
Play16 FREQ=9600
Sounds/Sine.raw
```

Image processing functions can have a very interesting effect on vocal samples. Listen to the Sounds/YMMind.raw sound to hear a normal voice speaking:

```
Play16 FREQ=9600
Sounds/YMMind.raw
```

Now, try the solarize function with the Sounds/YMMind.raw sound. Load it using a width of 200 and height of 141, solarize, save it as YMMind-Solarize.raw and listen with:

```
Play16 FREQ=9600 YMMind-
```

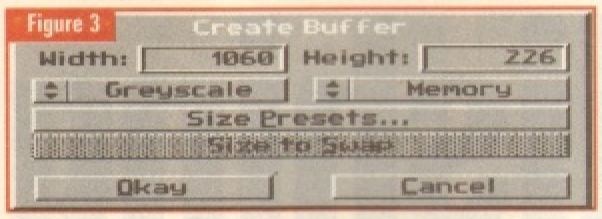


Figure 3

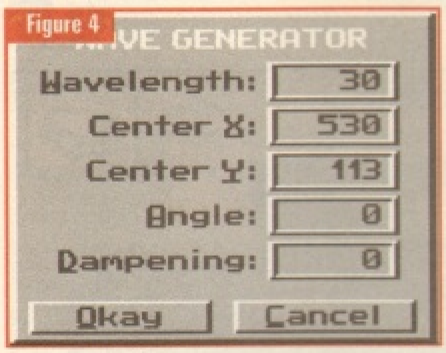


Figure 4

```
Solarize.raw
```

This effect will make the voice sound very nasal and cheesy. Add a pocket protector and a pair of glasses with some white tape on the nose bracket and we have got a real nerd here!

It's easy to see that it is important to experiment with an effect on several different kinds of sounds. Or else, you may never know the potentially great surprises that you've missed.

Rotate

The rotate image effect can have some very interesting and very drastic results.

Load the Sounds/YMMind.raw sound using a width of 200 and height of 141. From the toolbox, select Rotate, set the angle to +28 degrees and select Any Angle (Figure 2) to start the process. Save it as YMMind-Rotate+28.raw and listen with:

```
Play16 FREQ=9600 YMMind-
Rotate+28.raw
```

This is a very drastic change, but not that useful, unless you like raunchy sounds like this.

Reload the original sound, or use ImageFX's undo function and try the Rotate effect with an angle of -90 degrees (Figure 2). Save it as YMMind-Rotate-90.raw and listen:

```
Play16 FREQ=9600 YMMind-
Rotate-90.raw
```

This is still a drastic change from the original speaking voice, but the change in rotation angle gives a much nicer result for this sound.

If you needed a good electricity sound then it could be a very useful one to use.

The Laser-Copter

So far, we have only used the image processing software to perform effects on already existing sounds. We can also use it to generate new sounds from scratch.

To begin, we need to create a buffer to store the image that we are going to create. From the toolbox, select Buffer and then Create Buffer. Set the width to 1060, height to 226 and make it a Greyscale buffer (Figure 3). The width and height values given here determine the length of the sound file, so 1060 x 226 = 239560 bytes. At a playback rate of 16780, that will give us 14.28 seconds of sound.

Now that we have our buffer ready, lets create something to put in it. From the toolbox, select Alpha and then Create. From the Create Alpha Channel requester select Wave Generator. Set the Wavelength to 30, Center X to 530, Center Y to 113, Angle to 0 and Dampening to 0 (Figure 4).

This function generates the wave, in an alpha channel buffer, so when the function is complete we need to copy it to our image buffer so we can see it. To do this, from the toolbox select Alpha and then Copy From Alpha (Figure 5). Save the result as LaserCopter30.raw but do not listen to it just yet.

You can alter the pitch of the sound by changing the Wavelength value of the Wave Generator requester. Setting it to a higher value will generate a sound with a lower pitch; while a lower value will result in a higher pitched sound.

Try the process again with a Wavelength of 5 and save it as LaserCopter5.raw. You can also change the pitch by using Play16's Freq parameter, but this would change the length of the sound also.

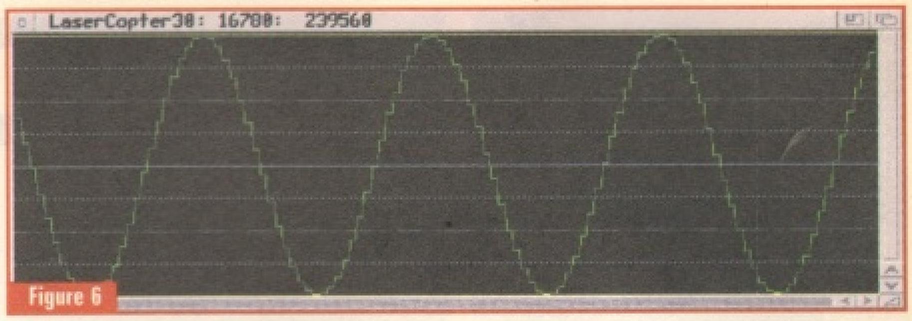


Figure 6

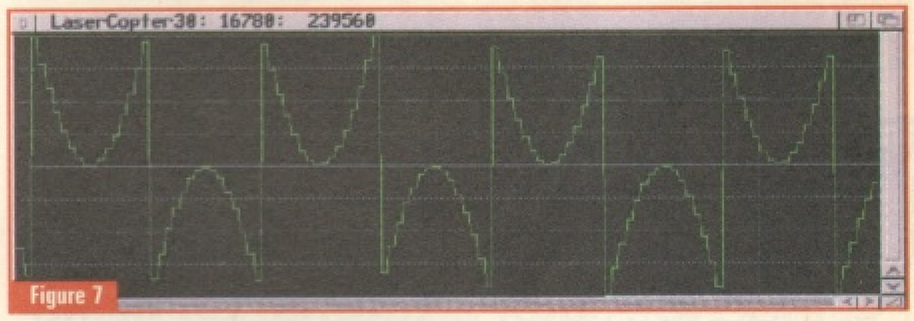


Figure 7

Signed vs unsigned

Another thing to understand is that image processing software works with its data as unsigned values.

That means that all values are greater than zero. This is generally the way that all image data is stored, regardless of the software being used. However, this is not necessarily the case for audio data. On platforms such as the Amiga and SGI, audio data is stored as signed with positive and negative values.

While on the Mac, PC and ST, data is stored as unsigned values. It is important to keep this in mind when playing back sounds as they can sound very different if they're played wrong.

The Laser-Copter sound that we just generated demonstrates this very well. The image processing software will create the image with all positive values. But, since the Amiga uses the signed data format for audio, Play16 will use that by default when playing back the sound. For this example, that assumption would be wrong. Try it:

```
Play16 FREQ=16780
LaserCopter30.raw
```

To hear the sound properly, it is necessary to tell Play16 that the data format in the raw file is unsigned and should be played back as such:

```
Play16 FREQ=16780
LaserCopter30.raw UNSIGNED
```

If you compare the audio waveforms in Figures 6 and 7 with the image in Figure 5 you can see that Figure 7 is the closer representation. Instead of using the Unsigned option of Play16 you could first use SOX to convert the file.

```
SOX -u -b -r1000
LaserCopter30.raw -s

LaserCopter30-2.raw
```

will do the conversion.

The -u indicates the source file is in unsigned format, -b indicates that the source is in 8-bit byte format, -s indicates the destination file should be in signed format.

Note that SOX requires that a rate (-r) be given for the source file. For Raw data this value is not used, so it does not matter what value you use here. Refer to the SOX documentation for more details. Having converted the format already, it is no longer necessary to specify the Unsigned option. So, this will now work:

```
Play16 FREQ=16780
LaserCopter30-2.raw
```

The Big finish

These unique processes can produce some very useful results. But like any great experimental technique, it does takes time to get good results.

In many cases, it may be necessary to clean up the created sounds by using audio waveform editing software to filter unwanted noise or cut bad sections.

Sometimes, even a small section of a processed sound is enough to make a terrific percussion sound or some strange instrument. ■

Dhomas Trenn


Figure 5

Desktop Publishing

Professional Page 4.1

PART 8

Larry Hickmott kills two birds with one slightly used pen as he works through a tutorial on using DrawStudio Lite and ProPage to create an eye-catching CD cover.

On the front cover of last months CU Amiga, you were given a truly wonderful freebie in the form of DrawStudio Lite. To celebrate that fact while continuing with our tutorials on using Professional Page, in this month's workshop, I want to show you how you can create great looking CD covers.

The cover is two sided and fits on an A4 portrait page. The top side of the cover will contain an eye catching image which we'll create in DrawStudio Lite and on the back side of the cover some text produced in ProPage.

Start here

Your first job is to create in ProPage a template for the two sides of the cover. Run ProPage, create an A4 page making sure that you have no Margins and two Columns.

What this does is to give you a vertical centre line providing you have "Show Columns" on in Layout Tools. The line is used for aligning your boxes so they are centred on the page.

Once the page is created, save the document to disk giving it an appropriate name. The basis for the cover is a box 120mm by 120mm, so use the Box tool to create a frame any size, double click on it and then enter the size in the Width and Height gadgets. To position the box where we want, take the centre handles of the box and line them up over the dotted centre line running down the page.

To finish up, create some crop marks on each corner of the box. These can be any length but should stop short of the edges of the box. A trick here is to turn off "Box Outlines" (Ctrl-B toggles this) and then give the main box a temporary outline by making sure its active and pressing Ctrl-F. This creates a less cluttered screen on which to work. To turn off the box frame, press Ctrl-F again.

To save paper wastage, we need to create a second cover for this sheet of paper and this is done by first using the Group tool to group all the elements (box and crop marks) and then press Shift-K (duplicates the active group). Press and hold down the Shift key and then use the mouse to drag the group underneath the other cover.

Again, use the centre line down



▲ This is how the example CD cover looks when exported from DrawStudio V2 in 24-bit.

the page to line it all up.

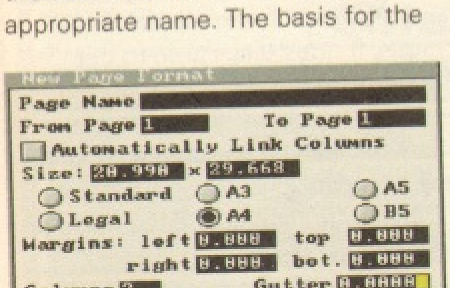
The only thing you need to do to clean up this little lot is delete a couple of crop lines which will overlap between covers. This document should then be saved to disk under a new name as a master template. To avoid over writing this document, save the file again giving it a name appropriate for this cover.

More templates

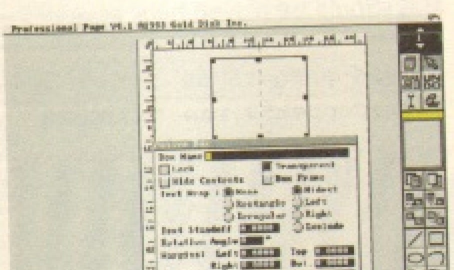
The page you have just created will be for the front cover. You now need a page for the underside of the cover and this is created by first choosing "Make Template/Even" from the Page menu. Now choose "Create from Template" and choose Even as the basis for the page. You now have two pages with the boxes in the same place so when you print back to back, everything will line up sweetly. Save your work so far.

DrawStudio Lite

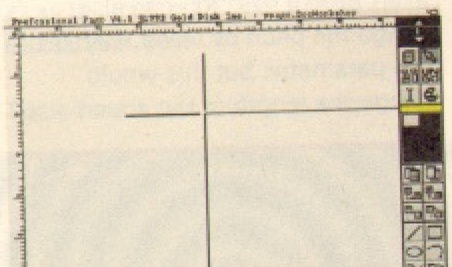
Now we turn our attention to DrawStudio Lite and the creation of an image for the front cover. The ways of going about this are infinite but here's a simple method to get us started. Choose the Rectangle tool, hold down the Shift key and draw a box approximately the size of a CD cover. It doesn't need to be exactly 120mm but you should have



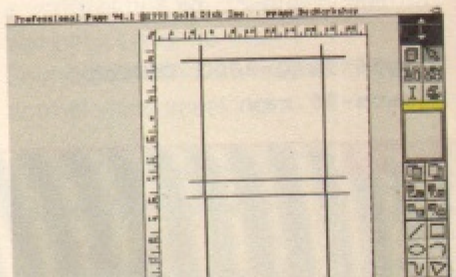
▲ Choose "Page/Create from Default" to make an A4 page with no margins and two columns.



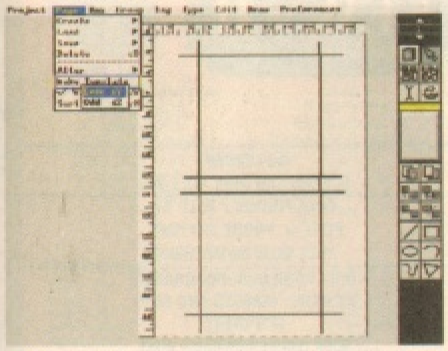
▲ Use the Box tool to create a frame and double click on it. Change the Width and Height to 12cm and click OK.



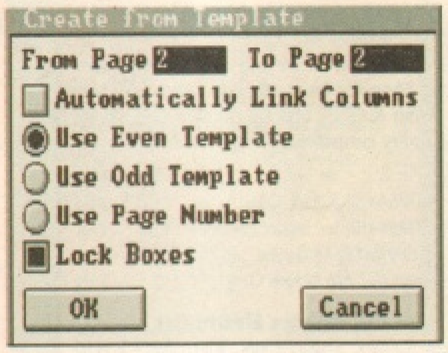
▲ Use the Line tool to add crop marks to the box for your CD cover. Hold down the Alt key as you drag the mouse to keep straight lines.



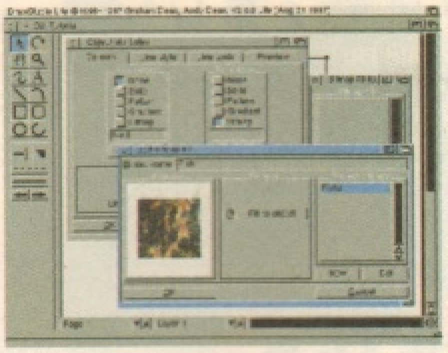
▲ To move a group of objects, hold down Shift, drag one of the objects in the group and all the elements will move at the same time.



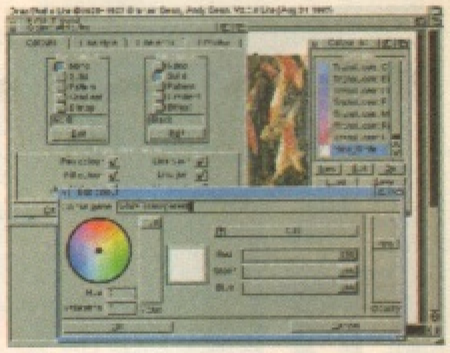
▲ To create a template of that page, choose Make Template/Even from the Page menu.



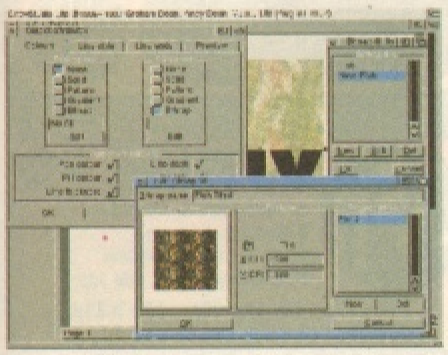
▲ You can now create a page from the Even template so you have two identical pages in your project.



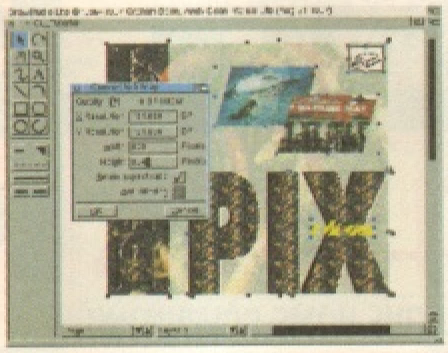
▲ The requesters you'll see when filling your box with a bitmap in DrawStudio Lite. Notice how "Fill Type" is set to "Fill to Object".



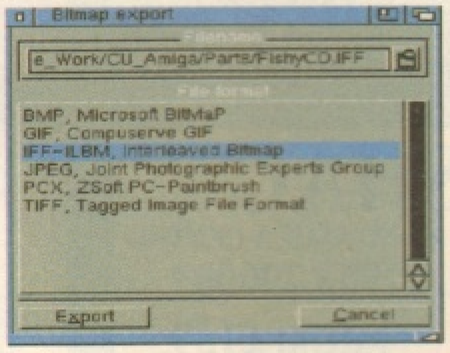
▲ To create a transparent colour in DrawStudio Lite. It's only useful if exporting or printing the image in 8-bit greyscale.



▲ The "Fill Type" in this screen grab is set to Tile and the dpi to 1200. DrawStudio allows you to use the one bitmap in different ways from filling an object whole or tiling it at many different resolutions.



▲ To export a finished image from DrawStudio Lite, choose Project/Export/Bitmap. Options; 8-bit colour or 8-bit grey. 8-bit colour, loses any transparency applied to objects. V2 allows 24-bit export so transparency is retained.



▲ You can export your image in a variety of formats which is very useful if you are using different types of computers.



▲ Here is our finished image. All the elements are now ready to be grouped and exported so they can be placed onto the page in Professional Page.

an idea now of how big the box should be on the A4 page from the work we have just done in ProPage.

You now need a bitmap for the box, preferably one around 640 pixels wide and square in shape. Make sure your box is selected and then choose Object/Attributes. Click on Bitmap and then on Edit. In the Bitmap list, click on Edit and in the "Edit Bitmap" requester, choose New to load a bitmap and then give the bitmap fill a name.

Now choose the Rectangle tool and create a box over the picture and fill that with a transparent colour. This is done by choosing Object/Attributes, clicking on Solid, then on Edit, and in the Colour list, click on New/Edit. In the "Edit Colour" requester, create a white colour if one doesn't already exist (255, 255, 255) and then change Opacity to 70%. Click OK, OK and OK again. As you can see, the box is partly transparent which is a useful trick to know when you want to place something like text over an image without it getting lost in the background.

There is however a fly in the ointment to the above steps. Later on, we will be exporting this image and the transparency will be lost if you choose 8-bit colour because transparency requires either 24-bit export (available in version 2 of DrawStudio) or 8-bit greyscale (available in DrawStudio Lite). This also effects printing.

Moving on...

Now add some text in a really bold font. This text should be the name of the CD or part thereof. For example, I've called this sample, "Fishy Pix" and used the words Fishy and Pix in different ways. The bitmap fill for the text is the same as the main fill but this time, tiled with a high DPI setting. This is an example of using the same bitmap fill but in different ways.

Now clone (Right Amiga-T) the text and create a black (or other colour) shadow which is placed slightly offset to the left and above of the original. Follow this with a second shadow, this time in white, slightly to the right and below the main text.

A second piece of text is created which runs down the left of the box on the part not covered by the transparent white box. This second piece of text has been rotated 90 degrees. Like before, I have filled the text with the original bitmap tiled, as well as adding a black (or other colour) and white shadow to create a 3D effect.

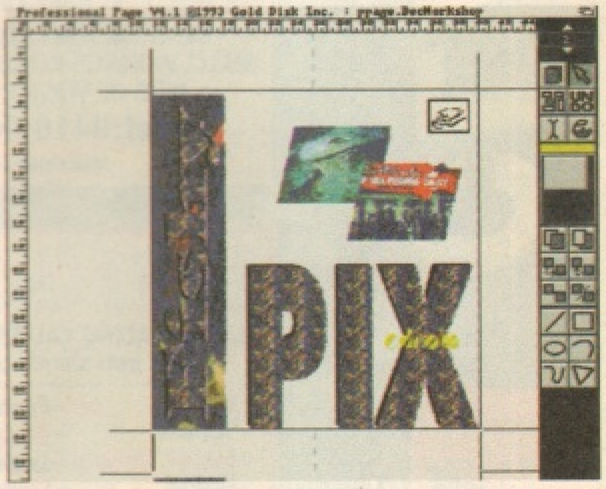
To finish off the cover, add some inset pictures and logos to make it look ultra professional. In the sample here, the inset pictures are created by taking a rectangle, warping it, filling it with a new image and then creating a clone and filling that with yet anther new image.

To conserve memory, use for the inset pictures, images no more than 320 pixels wide.

The finished article

Once the image for the CD cover is finished, select all the objects and choose Export/Bitmap from the Project menu. The size of the bitmap exported can be anything from 600 to 800 pixels wide for excellent reproduction on most desktop ink-jets.

You certainly shouldn't see any jaggies or any pixelisation at that resolution. If you do, then you should try setting a higher resolution.



▲ This example is the 8-bit colour image imported into a box in ProPage. Notice how the background has dropped out to white. This is because transparency is lost when exported as 8-bit colour. If you want transparency retained, choose 8-bit grey or get DrawStudio V2 which has 24-bit support.

The image can now be exported in 8-bit colour or 8-bit Greyscale. Remember what I said earlier about how using 8-bit colour will result in you losing the transparency of the white cover over part of your image. If you want more colours and anti-aliasing you need version 2 of DrawStudio available from LH Publishing.

With the image exported and saved to disk, you are now ready to import it into ProPage as the basis for the front cover. Don't worry if the colours don't all show in the 256 colour screen-mode as they will print fine. Personally, I leave ProPage in the Black and White screen mode and although the image doesn't look great on-screen, it does print fine and I also find ProPage zips along a lot quicker than when in colour mode.

I'll leave the final touches up to you but don't forget to fill in the instructions for your CD on page two and add any text to the image that is required. When ready, print page one, turn the paper over and then print two.

That's about it then for this month. In the next issue, we're going to be looking at using DrawStudio Lite to create some titles for use in ProPage or for those net freaks that are among you, on your WEB pages.

Larry Hickmott

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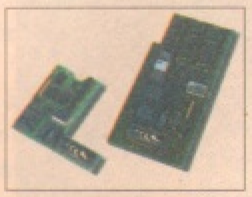


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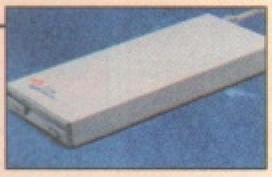
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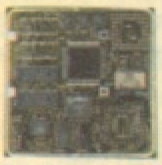
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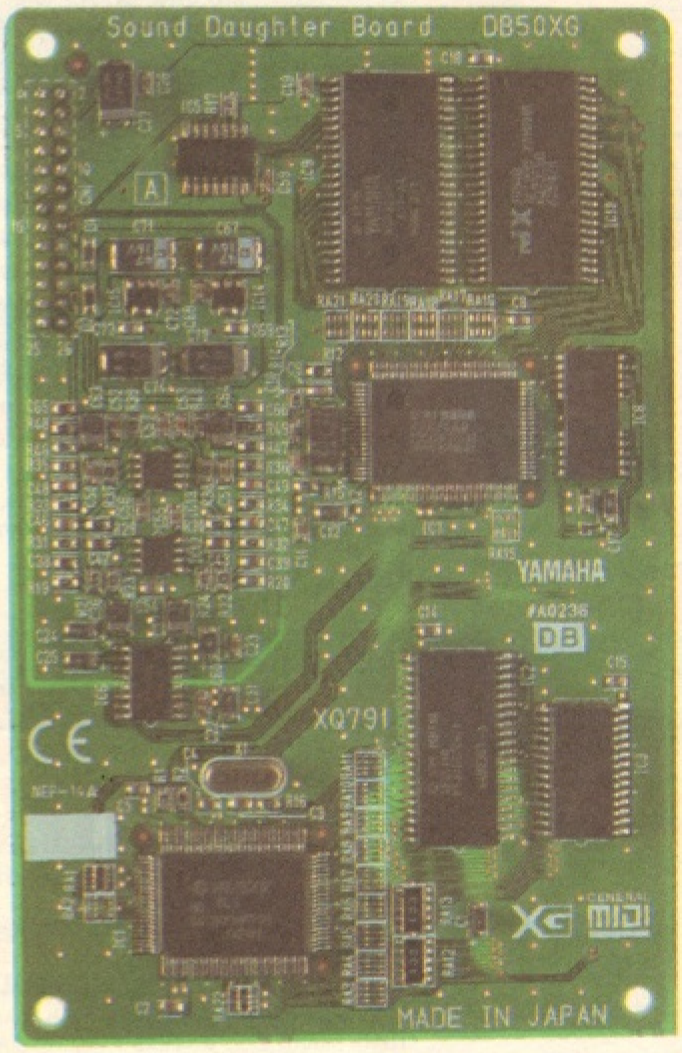
Trashed Workbench

We recently bought our daughter a second hand Amiga A600 which was working fine until we tried to install an Oki Microline 380 printer through the Workbench preferences. When we tried this we found that the preferences had been trashed and as we looked further we found that all the discs – Workbench 2.05, Extras 2.05 and Fonts 2.05 – had numerous trashed files. Can you advise me how I can get a replacement?

Mr A. Lomas, Manchester

This just goes to show how important it is to make backups of your Workbench. As soon as you get your machine up and running, you should back up these disks as your computer's full functionality relies on it.

The best bet for replacements might be Power computing (tel: 01234 851500) but we strongly advise you to look into why several disks seem to have been trashed. You may have a virus on your system, get a virus checker from your local PD house and run it over your disks. It is also possible that your floppy drive mechanism is starting to wear out.



Swing eights

I have a particular interest in using my Amiga for music (not mods). I use a sequencing set-up with a Yamaha TG100 tone generator and an RY10 drum kit, so I have no immediate plans to build a Project XG. However I am looking forwards to the interest project XG will generate and there will be many who want to add XG sounds but won't necessarily be confident about assembling the project. As an alternative approach may I suggest something like the Yamaha MU10? This costs around £199 and is basically an XG soundbox which works via midi connectors.

I noticed that the PC now has a wide range of sequencing and notation software available. Would you do an article on music software available for the Amiga? It would appear we are being left behind.

A requirement I recently had was to be able to write in 'Swing Eights', can you tell me about any Amiga software that can cope with this?

Dave Roberts, W Yorks.

To be honest, there haven't been that many developments on the Amiga music hardware/software scene over the last couple of years. We could say to ourselves "Let's do a music feature!" then find out there's nothing much new to say but do it anyway (for instance, interviewing people who have never even used an Amiga to make music). However, we feel that wouldn't be giving you the best service, nor the best economy of pages.
Most of the developments are happening in the shareware scene, with the continual evolution of trackers and the very promising Camouflage MIDI sequencer. That's one you should definitely check. We're not sure if it'll suffice for your swing eights, but it's odds on that it will.

1438 blues

Recently I ordered a 1438s monitor from First Computer Centre and on delivery I experienced a few problems. If I used any of the higher scan rates, strange horizontal lines and distortions of some of the icons occurred.

I had a lot of trouble in getting all of my money back as they assured me that they had tested it and there was nothing wrong with the monitor. I am aware of the stray magnetic field problem but I don't think this can have been the cause. First Computer center suggested there may be a fault with my computer. I have an A1200 with 6Mb RAM, an FPU and a hard drive.

I am now very cautious at the thought of trying another monitor,

so could you help me by suggesting any other possible cause of the problem?

Gareth Hill, Barnstaple

It's difficult to be sure without seeing it, but it sounds to us like you are suffering from a common problem with your A1200. Some A1200s have an obscure hardware flaw which causes interference on higher scan rate screens such as Multiscan and DBLPAL. This usually manifests itself as white flickering horizontal lines. The easiest way to tell whether you are suffering a problem in the computer's display hardware or with the monitor is to observe the behaviour of the interference when you drag a screen. If the interference drags down with the screen then the problem is with your computer, if it stays where it is it's probably the monitor, although dodgy connections and faulty cables are also a suspect.

The interference problem some Amigas have with the higher display modes usually goes away after the computer has had a little time to warm up. The exact causes are uncertain, but we *have* heard of a possible hardware solution. Apparently it can be fixed by shorting out the tiny surface mount resistor marked E127R. This can be found on the underside of the board beneath the chip marked "Alice". We haven't tried this ourselves yet, so *do* progress with caution!

Hot Blizzard

HARDWARE

I recently purchased a Blizzard 1230-IV accelerator with 8Mb of RAM for my A1200. It gives out a lot of heat making the trapdoor cover hot. I raised the Amiga a little to allow some ventilation, but it didn't help. Then I drilled some holes into the trapdoor cover, but still that didn't cure the problem.

Therefore, I decided to buy a tiny cooling fan from Tandy's. It is small enough to be squeezed into the trapdoor compartment, but I am unsure what the best way of supplying the 12V the fan needs. Do you have any suggestions?

Gary Colville, Scotland.

68030 accelerators do get hot, it's the nature of the beast. Just so long as nothing is getting scorched, this shouldn't be a problem. Does your computer crash a lot with the board in? If not then the CPU isn't really running too hot. Of course there is nothing wrong with cooling it, and a fan is a good way of doing so. Getting power to the fan isn't too hard, but will require a little jiggery pokery with the wiring. CPU fans are designed for CPUs in cases and tend to have a connector which plugs onto one of the spare 3.5" device power connectors, the type which would normally power a CD-ROM drive or a 3.5" hard disk drive. You can get an adaptor which will plug into the floppy disk drive power header on your motherboard from most Amiga hardware suppliers.

'060 far too slow!

EXPANSION

I own an Apollo '060 card and recently purchased the CD version of Cinema 4D to gain full advantage of it. When I installed the correct FPU version (there are 2 FPU versions on the CD, one for Phase 5 boards and one for other '060 cards) I noticed that the program, when rendering, crawled along very slowly and the mouse, when moved, would jump rather than move smoothly. I installed the integer version and found that it rendered about 10 times faster than the FPU version (indeed both FPU versions). I have installed the 68060.library and 68040.library which came with the board correctly.

I contacted HiSoft and was told that this was caused by the fact that the FPU calls were not being emulated on the '060. They told me I needed a piece of software called Cyberpatcher although they weren't sure it would work on the Apollo. When I borrowed a copy from a friend, I found it did not. I have just read the review of the Apollo 1260/66 card and noticed what your reviewer said about OxyPatcher. Would this program help me with my 50MHz card? Would it enable me to run TFX at a reasonable speed? Currently I'm sticking my old '030 card back in the machine to get best performance out of it.

In general the '060 card has made a definite difference; viewing Jpegs is a breeze and Frontier runs in smoothly in maximum detail setting but Imagine 4.0 suffers the same problem as Cinema 4D when rendering.

I have contacted Eyetech who supplied the card and they too are bemused by the problem.

Graham Stevenson, Glasgow.

Tech Tip: Over-clocking

TECH TIPS

It's a term you'll probably have heard. If you have an accelerator it may allow you to modify it for greater speed. Some people think it leads to hefty repair bills, other people think it is a great way to increase the speed of their Amiga for a minimal cost. We don't recommend the procedure, it's up to you to decide the pros and cons, but if you want to do it, we'll tell you how it's done and advise you on the best ways to avoid any potential pitfalls. If you aren't reasonably confident, don't do it. It is reasonably safe if you are sensible, but you can blow up your CPU if you make a mistake, and your guarantee will be voided by the procedure. If it happens, don't blame us!

The principle behind overclocking is very straightforward. When you buy an accelerator which runs at say 50MHz, it does not run at this speed because of something inherent in the design of the CPU, it runs at this speed because of the clock which sends it a timing pulse 50 million times every second. The printed speed is merely the one the manufacturer guarantee it works at. Getting the CPU to run at a different speed is a matter of sending it a clock pulse at a different speed. There are fairly tight limits, but it is quite feasible to up the speed of your accelerator by around 20%.

On your accelerator you will see a small square or rectangular silver chip like box. It will have a whole bunch of numbers printed on it, the last of which is usually the clock speed in MHz. Expect there to be a lot of digits after the decimal point – if you have a 50MHz accelerator it will say something like 50.000000M. This is the clock, and amazingly reclocking simply means replacing it with a faster one. These can be bought for a few pounds from most electronics retailers.

If you're lucky you'll find the clock is mounted in a socket and can simply be pulled out. If you are unlucky, you'll find that it has been soldered into place, in which case steer clear if you aren't a good soldering iron jockey, de-soldering from an intricate PCB is very hard. If you do take on the task, use a solder sucker or desoldering braid and remove the solder slowly over several passes, not holding the iron to the board too long at any one go to avoid damaging the tracks.

Notice one of the corners of the clock is either marked with a dot or squared off or both, this shows the clock alignment. Stick to this when you insert your next clock. When the old chip is removed, drop the new one in its place and away you go.

How fast is safe?

There are very real limits to how much a processor can be clocked, although it varies from chip to chip. Some people may find that even the smallest amount of overclocking will lead to immediate system crashes, others can get away with murder. If you are using a cheaper accelerator board in which the processor is already clocked, it's not really advisable to try it. As a very rough guide:

Original Processor	New clock
030/33	42
030/50	50
040/25	33
040/33	40
060/50	64

Some people have systems running faster than this, others have problems going this fast.

An interesting exception is the new mask revision of the '060, which has the serial number XC68060RC50A. This is the chip used in the Apollo 1260/66MHz board, and we have had it running at up to 80MHz, just about.

What can go wrong?

Assuming you've installed properly, and you haven't been silly with the clock speed, not much. If the computer crashes a lot, you may have to give up and reinstall the old clock, but otherwise it should be ok. You'll be running the chip at its limits, so keep it cool. Ensure good ventilation to the CPU and make sure it has a good fan on it. Another factor is RAM speed. Slower SIMMs are problematic, and with faster clock speeds you'll need fast SIMMs. Even 60ns SIMMs may not be up to it in some cases, although there are also significant brand to brand variations to make life more interesting.



The '060 is a lot faster, as you have noticed when it comes to the jpeg decoding etcetera. 3D rendering is a little bit of a special case. Certain programs such as these use FPU functions, and here you can run into problems. With older programs, the FPU code is written assuming a 68881 or 68882 co-processor. The '040 and '060 have somewhat different instructions set and a different way of calling FPU instructions. The 68060.library and the 68040.library do enough between them to allow the processor to function, but this does not mean that all the FPU problems are solved, far from it.

Cinema 4D has an integer version for people with no FPU hardware whatsoever, and this is much the slowest version. The FPU version functions with the 6888x instruction set and is also recommended for '060 users with Cyberpatcher. This is the software phase 5 supply with their '060 boards. The version for other '060 boards is an odd one. If you properly implement a true '060 version of your code, it ought to be more optimal that 6888x code. I would assume that the version of C4D for other '060 versions is written with '060 code, in which case it ought to be better on cyberpatched boards too. Apparently not.

Cyberpatcher is written to run on phase 5 boards only. Oxypatcher does a very similar job, but will run fine on your Apollo board. If you get it try running the FPU version recommended for use with cyberpatcher, you should find it considerably faster than the integer version. And yes, it will make both Imagine and TFX go a lot faster.

A530 must go!

I currently own both an A500+ and a bog standard A1200. The A500 has a GVP A530 sticking out the side of it. I would like to expand my A1200 but I lack the funds to add much to it. So, I was wondering if it would be possible to use the A530 with my A1200 using a squirrel for example? If so what exactly do I need to use to achieve this? Also, will, the A1200 have access to all the A530's functions?

Paul Dalton, Lancs

The incompatibility between the A500 expansion slot and the A1200 was the reason for a lot of people to not upgrade. There was never a converter made, but as you have spotted, this does not mean throwing absolutely everything out. The squirrel interface provides the A1200 with a SCSI bus, which is what the A530 has. Unfortunately this does not mean you can just plug it in, the A500 expansion slot is a complex DMA slot very similar to a Zorro slot.

The SCSI bus is implemented internally to the A530. This means that the only thing you'll be able to get out of the A530 via a squirrel is access to the hard drive, which is a SCSI device. You would have to run a cable from the squirrel to the inside of the A530. There is no chance of getting the accelerator to run on an A1200, and even the RAM can't be used as it is GVP's own brand and won't work in any other processor. For the work involved it's barely worth it, check out the price of hard drives these days, you may find that the cost of sticking a hard drive in an A1200 is a lot cheaper that you thought.

2x not enough?

I run an A1200 with 6Mb, HD and an Aiwa ACD300 2 speed CD-ROM drive via a Squirrel interface. Is it possible to upgrade my CD to a faster speed? In January I bought a copy of the Epic Encyclopaedia and afterwards found it required a 4 speed to run properly.

Mr J.W. Fry, Doncaster

When software states that it requires a 4x minimum, this is usually because it tries to spool animations from the CD. This technique allows you to play far larger animation sequences that could comfortably fit in memory. This needs data to be sent from the CD fast enough to keep up with the animation, hence the need for fairly fast drive mechanisms.

The good news is that if you want to upgrade your drive, it is just a matter of buying a faster SCSI CD-ROM drive and plugging it in.

Mini Tower Mania

I want to upgrade my A1200 but have a low budget (£250). I have decided to buy a hard drive and CD-ROM drive and shove them into a minitower, but I have some questions I'd like answered.
1. What size hard drive should I buy? I generally only use my Amiga for playing games. I have around 50 hard drive installable games and all of your CDs from 9 onwards.
2.What speed CD-ROM drive do I need? Would a 4 or 8 be sufficient or will I need faster? Gasteiner advertise a 100 speed CD-ROM drive for £100, is this a misprint?
3. I need a minitower, but I'm not sure I want to risk doing your DIY project. Do you know where I can get a minitower with all the cables etc., and with all the hard work already done?
4. Will I need some extra RAM? I've currently only got 2MB and I'm not sure if that is enough for playing many of the new games coming out.
5. Will I need a buffered interface splitter such as the alfaquatro or the one from Eyetech?
6. Should I get IDE or SCSI? What's the difference? Thanks for answering my questions, up yours if you haven't bothered to print this.

Kevin Cunningham, Belfast.

1. It's difficult to answer, as the extra space keeps on getting cheaper. In theory a 1Gb HD should be ok, but then if it's only a tenner more for 1.3MB it's silly not to get that. Except that it's only another tenner for 1.7MB... etc. etc.
2. 4x will do for most purposes, but at least one game we know of (Golem, from Underground Software in Italy) really needs an 8 speed CD-ROM drive. Faster is a luxury. The 100 speed drive in Gasteiner's ad is not a misprint, but should not be taken at face value. For some bizarre reason the PC market has developed a 'my CD-ROM drive is faster than yours' obsession, which has lead to some manufacturers using the hard drive as a buffer for greater speed. The Gasteiner device is actually a 24 speed mechanism, the Amiga buffering software should be ready by the time you read this. We'll tell you how it performs when we get one in for review.
3. Ring up Eyetech on 01642 713185 or ICS on 01474 335294. They'll offer alternatives on which way to go, so listen to them and choose whatever suits you best.
4. Yes, most new games require 4-6Mb of RAM. Seriously consider a cheap accelerator, the best upcoming games want one of those.
5. Only if you intend on having a 'sidecar' style mini-tower mounted on long cables. For shorter lengths, buffering has shown to be unnecessary. If you ever want to attach more than 2 devices then a buffered splitter is ideal. Despite warnings you may have heard to

the contrary, thousands of Amiga users use 2 devices connected direct and we've not heard of this damaging a computer yet.
6. IDE is a cheap but useable option. SCSI involves buying a separate SCSI adapter, and SCSI devices are more expensive. The good thing about SCSI is that you can connect 7 devices to a SCSI interface quite comfortably, while IDE is pushed at 4. Also SCSI is faster – useful when doing something with a lot of data throughput like writing to CD-Rs. In your case I imagine IDE would be better. Oh by the way, up yours too!

Shrinking HD

After some difficulty installing Theme Park AGA to my 1200 Mb hard drive, I found that I was getting a "Volume Work: not validated" message on booting up. I backed everything up and prepared to reformat it, but I never got that far. Next time I switched my Amiga on, it refused to boot up at all and when I checked the device list there was no sign of DH0: or DH1:.

I took my A1200 to my local repair shop and when they returned it, the hard drive had only 40Mb of space on it. They said they thought I had formatted one of my partitions wrongly, but this didn't match up with the size of either of my partitions. I checked inside, and yes, it is the same hard drive I installed.

What's happened to my hard drive, and can I can get my original capacity back? Will I have to buy a new hard drive, and if so is there anyone who does part exchange?

Alex Furmanski, Luton

Sounds like part of the hard drive is corrupt. Try scanning it with Quarterback tools then reformatting to see if it frees up that space, but remember not to do a 'low level format' as it will only make matters worse. Our guess, is that as the game was installed the hard drive suffered a kind of glitch or power outage or physical shock which damaged the hard disk.

The repair house would've fixed it by marking the bad blocks on the disk as out of service, which means lowering the capacity of the drive. In this case the only option is to buy a new one. As for part exchange, 40Mb is so little nowadays it's barely worth anything. A look at prices should cheer you up though, they have dropped a lot recently.

A to Z

Good grief, are we up to letter C already! Time sure does fly when your havin' fun and John Kennedy is the man who's giving it to you.

C is for...

C
A programming language which strikes a good balance between speed and human readability. Very suitable for programming applications on the Amiga.

C++
Originally called "C with classes", C++ builds on C adding extra features of most appeal to Object Orientated programmers. C++ compilers can also deal with C source programs.

Cache
An area of memory designed to speed up access to something slower. A disk cache stores information in memory, which is quicker than reading it from disk. Even the CPU at the heart of the Amiga has internal caches for storing data and addresses.

cd
AmigaDOS command for changing the current directory, for example, "cd ram:" makes the ram disk the current directory. All subsequent AmigaDOS commands will act on the current directory unless specifically told to use a different path.

changetaskpri
An AmigaDOS command to alter the priority of a currently running program. Remember that the Amiga is multitasking, and so dozens of programs can be running at once. To give one an advantage over another, use this command. You will need to know the process number if you want to alter the priority of a particular task: use status to find it. Then use "changetaskpri priority process=

Chip memory
The Amiga has two kinds of memory: Chip and Fast. Chip memory is shared between the processor and custom chips, and is used to store graphics, sounds etc. Due to the sharing, if an Amiga only has Chip memory (referred to as "graphics memory" on the Workbench title bar) it runs more slowly than if it also has some Fast memory. Chip memory is standard in Amigas.

CLI
The Command Line Interface, where you type AmigaDOS commands. The CLI grew into the Shell, which added some extra editing functions.

clicktofront
A Workbench commodity program. With clicktofront running, any partly obscured window is brought to the front as soon as the mouse point is clicked on it.

clock
A "Real Time Clock": remembers the time when the computer is switched off. RTCs are standard on Big Box Amigas, but need to be installed on A1200s .Most are built into accelerator cards.

cmd
A bizarre AmigaDOS command, which captures output meant for the printer or serial port and saves it to a file.

Colours
The Amiga has lots of colours: old fashioned HAM mode had 4096, and AGA Amiga's can pick from palettes of over 16million colours. The number of colours on-screen at once depends on the screen mode: up to 256 in normal Workbench friendly modes, and many thousand in HAM8 mode. With a graphics card, more colours can be displayed more quickly.

Commodities
The Amiga Workbench tried to create a standard for all the little hack programs and utilities, so gave them a fancy name and a standard way of using them. The Commodity Exchange program on the Workbench disk allows individual utilities to be examined. A great idea, missing on other platforms.

Compiler
A program which takes source code (the almost-English entered at the keyboard by programmers) and converts it into something which the Amiga can run. Along the way it may convert it to Assembly Language, and some systems require linking as well. Compilers for C, C++, Pascal and Basic are available for the Amiga.

Copper
A unique part of Amiga hardware, the Copper is the coprocessor which spends its time looking after the screen display. The copper has its own program, called a copper list, which is executed every time the screen needs to be refreshed and which contains mode and colour information, amongst other things. By altering the copper list from another program it's possible to achieve special effects, such as "plasma".

copy
An AmigaDOS command used to duplicate a file or directory. There's a lot more to it than you might think, but "copy name device:" is the more basic usage, and it copies the file called "name" to the new location.

CPU
At the heart of the Amiga is the CPU 'the Central Processing Unit'. This is the chip which runs the operating system and any applications, and keeps the rest of the computer going. The faster the CPU, the faster the computer overall. Amigas use Motorola 68000, 68020, 68030, 68040 and 68060 processors at various speeds. Accelerator cards featuring Motorola's follow up to the 680x0 chips, a processor called the PowerPC, are now becoming available. These are between 3 and 15 times as fast as any earlier accelerators. CPU is also an AmigaDOS command, used to control various aspects of the Amiga's processor, such as switch caches on and off.

Custom chipset
As well as the CPU, the Amiga has custom chips (designed specifically for the Amiga) which look after graphics and sound. Although when the Amiga was launched, these chips gave it a huge advantage in its capabilities, perversely they are now out of date and hence holding back the Amiga in several areas, notably fast graphics, fast comms and 16 bit sound.

Backchat

Make yourself heard. Send your views and opinions to Backchat, CU Amiga, 37-39 Millharbour, Isle of Dogs, London E14 9TZ, UK. Or E-mail to backchat@cu-amiga.co.uk

More failures please!

I am just writing to say that the 'What Went Wrong' article in the July edition was (in the words of a movie I watched recently) 'most excellent'.

Will you be running any more articles like this in future? For instance; Who's Who in Amiga? What happened to all the people involved with it (were they all absorbed into the Scala continuum?). By the way, I remember reading a book years ago about the story of Apple. Is there any such book for the Amiga? With a story like it has had, there should be.

Lance Edusei, Liverpool

As far as we know, there hasn't been a definitive 'Story of the Amiga' book. We could do a 'Where Are They Now?' kind of thing, although to be honest we'd rather concentrate on what's happening now, rather than dwelling too much on the past.

Don't give up on us

I would like to say that you have a superb magazine [snip – goes on to make offer some nice compliments].

Now to the complaint: Over the last few months I have like everybody else been waiting impatiently to leg it down to my local newsagents for my copy of CU (I buy no other AmiMags – not good enough!).

Of course the CD-ROM is absolutely superb, but the magazine has been sorely disappointing! Not the content, but simply the size! Each month when I receive my magazine I settle down for a night of informative, interesting reading. Unfortunately my 'night' only lasts for about an hour or so! Then I have to wait for another whole month! Arghhhhhhhhh!!!!!

In recent issues I have read readers letters suggesting things like 'E-mail penpals' etc. Would it cost you a small fortune to add things such as this? How about more letters/Q&As? Poor FAQ seems to be finishing! Does that mean we'll lose yet another page?

The hardware/DIY scene is a welcome addition for me, as I am unemployed and so therefore my wallet is not a bottomless pit! I remember seeing a project on Aminet for a Zorro slot expansion to enable an A500 to use a graphics card – how about that project but modified for an A1200, using Picasso96 software? Or another sound card project that either would enable us to use a PC sound card, or salvage one – they are much cheaper than the Yamaha board you use for the Project XG!

On a "We said we'd do it but we haven't" note I read in one of my older issues that you would be putting the entire Imagine 3 tutorial onto one of your excellent CUCDs – when? And the full HTML tutorial would be nice too!

And I am still waiting for my Amiga tower sticker to put on my new tower case! Don't get me wrong, I'd still buy your mag if it deteriorated even further, as the CD makes up for it, but do you now see yourself as a 'CD with a mag attached' or 'The best Amiga Magazine with a cover CD that PD houses would die for'?

Please, sort yourselves out, as it seems to me that it is just a precursor to the time when you, too, will abandon your loyal supporters! I would not enjoy my Amiga half as much if I did not have CU!

I was recently discussing the situation of AmiMags closing down on IRC, and my opinion was that how could they after all the money their readers have lined their pockets with? The opposing argument was the 'Bill Gates' style of response – if you start to lose money you pull out – business is business. I would like to think that I have in part paid your wages – if for a while you have to suffer a pay cut, is that any reason to change employment? That is a cop-out decision!



I would just like to finish off by saying that I do enjoy your magazine and will buy it until you, too, decide to give up on us.

Pootle, via E-mail

First, let's tackle the issue of size. You'll notice that this issue of CU Amiga is bigger than it has been for some time. We are now at 116 pages, as opposed to 108, the previous size of CU Amiga since the September 96 issue. The size of the magazine is linked into the various incoming revenue and outgoing costs involved in producing and distributing the magazine. As the Amiga scene has shrunk, this has had an obvious knock-on effect. With less money in the system, we cannot afford to produce a 200 page magazine, much as we would like to. If we did, we wouldn't last long. As you point out, "business is business" and no amount of Amiga enthusiasm is going to keep a magazine going if its finances aren't properly managed.

However, the recent renewed interest and slight upturn in investment in the Amiga trade has this month been passed on to you in the form of a slightly larger issue. You will also find that we pack in a lot more words, facts, comments and figures than you will find in your average magazine, page for page, which is one of the ways we try to make sure CU Amiga delivers on the value front.

As we have said before, CU Amiga Magazine will continue for as long as it is financially viable. The bit about the Amiga press "lining their pockets" with their readers' money sounds a little harsh, like we're all rolling around in great pools of crisp £50 notes. If only! So long as enough readers keep buying the magazine, we'll keep our end of the bargain.

Finally, you should find the complete Imagine 3 and 4 tutorials on the January issue CD, which coincides with the final part of the series.

Lopsided spine

Just a quick word to let you know how disgruntled I am with CUCD 15. Not because of TFX (which was good), not because of the CD content at all, that's usually very good. No! My complaint is that you have changed the 'Amiga' logo on the spine of the cover from the left hand side to the right hand side! My CD stacker now looks lop sided!

You could've waited until say 16 issues, *then* changed it around, it would then, maybe, have made it easier to find which CD you wanted.

Tom Newsom, via E-mail

Letter of the month

German TFX

Hello CU TEAM,
First of all, THANK YOU !!!! for bringing us TFX. I am a german CU reader, enjoying CU for years, but this issue was the best ever – TFX is just amazing!

Many Amiga Users in Germany want to play it, but they can't get a copy of CU. I'm a lucky guy, cause I got one but what about the others? Is there a chance to order it? Will you sell (thousands of) them in Cologne? Is there any other way to get them?

Please, answer me quick, because after writing in a German Amiga Internet Forum that I am playing TFX, many people have sent me E-Mails and ask me where to get an issue – I can't answer. My second problem is with TFX. I have no Idea of using air to ground missiles. I know how to choose them, but how can I lock them to the destination, and fire it?

Gunnar Gertzen, Hannover.

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If you have any problems getting a copy, contact them. The easiest thing is, as always, to subscribe. As for the Cologne show, we'll see what we can do.

Did I miss something?

I have a question: where have all the software advertisements gone from your mag? There used to be loads, but now there are only shareware and hardware ads. I only ask because I would like to buy Wordworth or Final Writer, but I can't because no one is selling them!

On another subject, I am going to be upgrading my Amiga soon, after three years on the PC. Yes I know, and was wondering if you could do a review on all the accelerator cards out there. Or just reprint the reviews that you have done over the years. Thanks

K. Shirley, via E-mail

Sure! Tell you what, if anyone has missed out any other issues (or 'not bought them' as it's otherwise known) why not write to us and we'll re-print all them in their entirety just for you. Yeah, right! That's a joke by the way. You can order back issues of course, from our back issue department. See the advert lurking somewhere around this back pages for details.

TFX Configuration

I'm glad TFX finally managed to see the light of day. I must thank you for your efforts on this project.

I have been experimenting with the TFX CD distribution to find the best possible configuration for the game. As you probably know until TFX_040 version is patched by someone it won't run on an 060 processor.

I have therefore come up with this configuration to get the most out of TFX on a Blizzard 1260 Accelerator.

1. Boot with no startup-sequence in NTSC mode if possible.
2. Have your ROM mapped into fastram (the game appears smoother with ROM 3.1? don't ask me why though)
3. Run Setpatch (version 43.6) available from ftp.amiga.de
4. Run Cyberpatcher (Phase 5's 6888x emulation program)
5. Use This configuration in the config prog:

Detail: High (Medium if it is still too jerky with Visibility between 4 and 7)
Flight Model Arcade (Simply appears to have way too many bugs)
SFX: Up to user
Music: Up to user
Horizon: 32
Visibility: Between 4 and 7 (Any more than 7 and the frame rate drops) u (This option is critical to TFX's speed the higher you take this option the slower the game will run)
u
Texture: Enabled
Gourade: Enabled
View Switch: Zoom
Show Weapons: Yes
u
6. Execute the TFX_FPU script in your TFX directory.
7. Have Fun !!! :)

This configuration was setup on a
Micronik Infinitiv 1400T Zorro II
CyberVision 64/3D u
Amiga OS 3.1
Blizzard 1260 66MHz (Clocked n' Cooled)
Atapi X4 CD-ROM
34 Meg Ram
1.76 Mb Floppy
1.2 GIG HD
My computer is Powered by Amiga.

Let's all meet up...

Much confusion has arisen, as you undoubtedly are aware, regarding the effect on computers of the transition to the 21st century. It would interest me, and likely many others, if you could give a comparison of the impact of year 2000 on the operation of the Amiga, PC and Mac. I have seen little on this subject in CU Amiga. If it is a non-issue, let us know that too, but all the news elsewhere indicates otherwise.
Thankyou.

Mark Dekeyser, Canada

We might just do that you know...

Gateway plans

It might interest you to know that ZD Network News recently featured a story about Gateway 2000's plans for the future of the Amiga platform.

It mostly includes similar news to the interview with Darreck Lisle by the Amiga Users of the Heartland on September 16th (check out http://www.cucug.org/aminew.html for a complete text of that one), but also includes a few other pieces of information.

Like the fact they have over 400 companies seeking Amiga licenses, or the fact that they plan to make a desktop Amiga that uses standard video cards, and is priced to compete with Wintel boxes.

Name not supplied.

Sprechen sie jargon?

Regarding your monthly mag, I've but only one real complaint.

It's ok to explore the features of Lightwave and Imagine 4.0 with hints, but if you don't have a bloody clue what they are you're stuffed!! Let's have a little more intro for the "Never seen the mag/Amiga before" quota and perhaps a Novices page for people like me who have only owned an Amiga for five minutes. Also, I have read that the Apollo accelerator is fantastic and a steal at only £300, but what the hell is it and why do I need one?

Why when I loaded my free disk last month did it not appear on the screen? Apparently because I don't have a hard drive! Why can't you tell me that, and why the heck should I need one?

I think you get the gist of what I'm trying to say here, but anyway keep up the dedication and quality above all else but please give some consideration to us newcomers.
Thanks.

Stewart Faux, via E-mail

Deciding on the level at which to pitch the tone of the magazine is tricky and under constant review.

We are under the impression that there aren't many total newcomers in the Amiga scene right now, hence the more advanced slant on most aspects of the mag. However, we take your point. We do state the system requirements of our cover disks, so take care to read them and make sure you've got sufficient hardware.

Why do you need a hard drive? Well if you don't mind swapping disks until your wrist locks up then stay as you are. For the record, an accelerator makes your software run faster.

Mines floppie

I own an A600 without a CD-ROM drive and am becoming annoyed about the attitude of those Amiga owners who are fortunate enough to own a CD-ROM drive. For example Christopher Aymar (Oct '97 issue) who asked you to 'get rid of the floppie disk version'. Please do not! CD-ROM drives are expensive and as far as I know, your CD coverdisk is not compatible with Amiga 600s using CD-ROM drives.

Though there's a lot more information on CDs I know a lot of people who would not be able to buy CU Amiga if you stopped producing the floppie version simply because they don't have a CD-ROM. Please keep the floppie version alive and keep up the great work.

Ross Whiteford, via E-mail

Our CDs will work with your A600. All you need is a CD-ROM drive. We suggest a SCSI kit with a Squirrel interface as the easiest solution. Alternatively, and more to the point more cheaply, connect an IDE CD-ROM drive to your A600's internal IDE connector.

Rock and roll!

So much talk about PC versus Amiga all the time. Yes, I do it too, with my friends who all have PCs of course. One thing I have asked them about is: can you or have you ever edited a startup-script on a PC?

Can you or have you ever edited a script that's like an AmigaGuide on a PC? No – they don't even know what I'm talking about.

So please tell me if it's possible to write such a script on a PC which is similar to an AmigaGuide. AmigaGuide appears to be unique

Continued overleaf ▶▶▶

and I like it very much. Some time ago now I wrote Norwegian post-codes in an AmigaGuide – over 7000 lines. Phew! But I would certainly like an upgrade of the AmigaGuide itself now. And I've seen some too, but they are all too over-exposed. Just let it be simple as it is now. Maybe a little more for example colours or possibly to show a picture with nodes inside the picture.

Then you could make something look like a real program. There is already some programs doing that, but they're too complicated.

Carl E Bosen, Norway

You're right, there is already something like an advanced version of AmigaGuide, with support for pictures and animations too. It's called HTML. Modern PCs use this as their standard hypertext system and there's no reason why you couldn't switch to it as well.

So, 7000 lines of Norwegian post codes eh? Shame you didn't invite us to the party – sounds like a right old knees up!

Paging Justin Tuijl

On Page 97 of the October issue a letter was printed from a Mr Justin Tuijl who lives in Norfolk, a small part of which mentions an apparent offensive letter sent by RBF Software.

As we do not have a record of this reader's name or address on our database, we would, in fairness to us and CU Amiga, ask Mr Tuijl to send us a copy of the offensive letter he mentions (you obviously have our address), to enable me to investigate this matter as I, in turn, find this public declaration/accusation of being offensive very unfair and would, if possible, like to get this amicably sorted to both parties satisfaction.

Ray Burt-Frost, RBF Software

I have a cunning plan

I've just heard some news about Microsoft, which has left me shocked! While flicking through a school copy of 'New Scientist', I came across a short article about the new Windows '98 package, which had some of the system requirements for this new 'wonderful' operating system.

According to the NS, W98 will require at least 120Mb of free hard disk space, which doesn't seem unreasonable for a disk-based OS, but what really shocked me is that the new Windows will need at least 48Mb of free RAM!

I just don't see why people can fall for this every time Bill Gates decides he wants more cash, when the Amiga is an extremely cheap and powerful alternative.

OK, admittedly recent years has seen little advertising for the Amiga, but a machine as brilliant as this shouldn't need advertising, as in the old days the Amiga sold simply by word of mouth. On the other hand, Win98 may just be one step too far for the Microsoft boys, as PC users won't be as happy to upgrade their high spec machines to these mammoth levels.

This means they'll be looking for a cheap alternative, which is where our chums at Gateway/AI come in; if Gateway produce a new Amiga with new Workbench (not a 3.x upgrade, but a new version 4), better graphics and sound, all the extras people have come to expect – all this for a reasonable price, they can attempt to release it at the same time as Win98.

The perfect ad campaign would be for the ads to go out the same time as Win98's, showing the new Amiga's capabilities next to that of the new Windows. Strange? No, because at the end of the advert it could be shown that the Amiga is a cheap alternative that doesn't need upgrading every time Microsoft has spent some money, and that it also has an already huge user base. All I can say is good luck to Petro Tyschtschenko and Jeff Schindler's teams. They'll need it! Finally, when I spell checked this file the spell checker insisted that 'Microsoft' should be spelt 'Microcyst'. And they say computers can't think!

Daniel Thornton, via E-mail

Not a bad plan, that. The trouble is people will buy what they are told to buy, hence your clever marketing strategy to tell people to buy Amigas over PCs. People have been bludgeoned into the notion that you need a PC running a Microsoft OS in order to do anything useful. The world has been educated to a mind set, and changing that is going to be an even tougher job than setting it was in the first place. Indeed, good luck to Petro and co.

Shocking 'mistake'

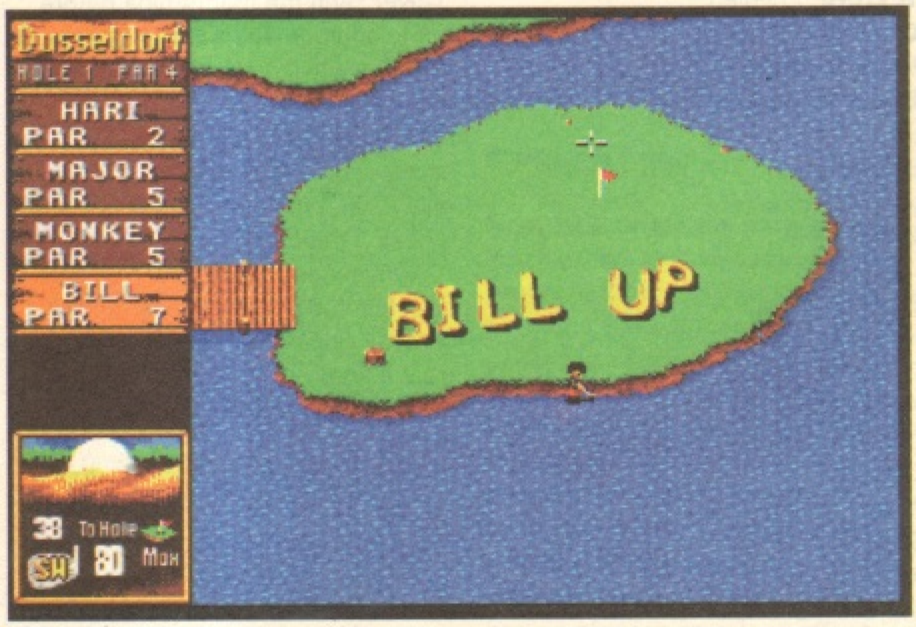
I'm a regular subscriber to CU Amiga and I'm shocked quite frankly... Review: Sensi Golf. Correction: "Hard Drive installable? No". WRONG! The game *is* hard drive installable thanks to work by myself and a Mr Jean-Francois Fabre who has written *loads* of patches for Amiga games. Visit http://www.ensica.fr/patches.html

I think that as an apology for this mistake you should put all his patches on a cover CD so those without Internet connection can benefit them too. Please.

Another thing: Review: Sensi Soccer 1996/97, same mistake but thanks to me and Piotr Bienek... Stick his patch (on the Aminet) on the CD too. Let's not see it happen again. Keep up the great mag...

Dominic Cresswell, via E-mail

We review games based on how they perform on their own. If someone has the sense to make a patch, then fine, but it still stands that out of the box, neither of these games will install onto hard drive. Your comments were told to the CD editor by the way, so look out for a patch bonanza soon.



▲Sensible Golf. No, it isn't hard drive installable. Not as standard anyway.

To the Point...

Here's a nice quickie

Can you tell me, how do I run PC programs on my Amiga?

Louis Shanahan, County Offaly.

Use PC Task to get your Amiga to emulate a PC compatible and run horrid PC software.

Give us a card

Please, please – anyone – give us A1200 owners something we all desperately want: a compatible, affordable graphics card – you'll make a killing

Steve Poponski, Melbourne, Oz.

It looks like phase 5 have answered your prayers Steve! Their new line of PowerUp cards for the A1200 have an expansion slot designed to accept a graphics card called the BVision64.

Internet Please

How about having some space dedicated to the Internet? Perhaps tutorials on how to set up net software, new updates for browsers, using the software etc.

David Anderson, via E-mail

You do read the magazine don't you? What about Net God, Wired World, Surf of the Month, all the coverage of comms hardware and software, the special Internet features and so on?

After TFX

Hello there! First of all let me say that I was as happy as a man who lives down wind of a prozac factory to see TFX cover mounted on your fine mag. I hope that this could become a regular venture rather than a one off. I'm sure there are a number of Amiga games that were finished but never released, Pizza Tycoon and Putty Squad are good examples, that you could also cover mount. So, how about it?

Paul Palmer , via E-mail

TFX was a special case. It was a game people wanted very much and we were able to get. It's not our business to publish games, but if something comes along and the circumstances are just right...



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Points of View



CU Amiga's regular soap-box corner never ceases to spark off a multitude of responses from you readers. Let's see what happens with this month's bunch of rants...

PowerUp to the people



It's crunch time for the Amiga. Sure, it's had quite a few crunches already, but it's now at a point where it really is do or die. The 'do' option comes in the form of phase 5's PowerUp cards (see the front end of this magazine for a look at the first model to appear). An A1200 version will arrive very soon, offering a short cut to state of the art computing that would bring the Amiga up to scratch with the very best and latest PCs. The 'die' option is as simple as it is obvious, and will be inevitable if this magnificent opportunity is passed up.

However, for once this isn't leading to a direct call for all existing Amiga owners to buy PowerUp cards. That in itself won't save the scene, or bring in any new users, although it will help encourage programmers to develop Amiga PowerPC software. If the full potential of PowerUp is to be realised, what we need is PowerUped Amigas on sale in the high street and retail outlets throughout the world. I still firmly believe the world does want an alternative to PC compatibles, and in many cases this is simply a matter of price.

People want a more affordable entry point into home computing, but while a 2Mb 68020 A1200 is affordable, it's clearly yesterday's technology. If there's something the average electronics consumer has learned over the past decade, it's the lesson of not becoming saddled with outdated technology.

"With a few concessions to modern expandibility (SIMM slots for example) a compact but powerful Amiga could once again rule the amateur roost".

With a PowerPC processor on board, an affordable Amiga could realistically hit the high streets offering the required string of techno-buzzwords to sway the discerning buyer. With a few concessions to modern expandibility (SIMM slots for example) a compact but powerful Amiga could once again rule the amateur roost.

Whether Gateway wants to put energies into such a project, or instead channel their resources into the construction of a far bigger, more distant project, remains to be seen.

If indeed Gateway do decide their Amiga divisions have bigger fish to fry, there's still the matter of their open licencing policy, which opens the door to anyone with enough enterprise to make their own PowerPC Amigas.

While there have been some recent success stories with third party Amiga manufacturers, if the Amiga as a platform is to have any kind of a rebirth, it will require a far larger player in order to push it to those millions of potential customers outside of the current Amiga scene.

■ **Tony Horgan is Editor of CU Amiga.**

Patience is a virtue

As Amiga users we all fall in the trap at some point. We've been with it so long that we're each certain we know what is best for the Amiga. Be patient and wait for authority to tell us what's going on? Hah! Who is this Jeff Schindler, anyway?

From reading CU, all you know is that he has a boat, right? Why hasn't he given us his engineering plan for the Amiga if he's this great former engineer? Why have we waited so many months since Gateway bought the Amiga to hear these things? It's hard to be patient through situations like these. But consider the alternative. A lot of people have pushed for Amiga, Inc. to commit to PowerPC and CHRP architecture (Common Hardware Reference Platform, a sort of generic set of standards for creating PowerPC machines). They'd have preferred that Gateway commit to this yesterday – more like a month or two after buying the Amiga. But what would that have meant for us?

First of all, it would have meant that management was making an engineering decree. There were no engineers working for Amiga, Inc. at the time. Keep in mind that the American Amiga engineering talent from Commodore has all moved on.

Many have good jobs or their own companies and aren't going to jump on board the first time someone calls them saying they own the Amiga. And we all remember what happens when management makes engineering decrees. Inferior products result. Not to mention the spanner Apple threw into CHRP development a few months ago when they all but cancelled their cloning licenses.

"Now that Apple has cancelled cloning and purchased their nearest rival, CHRP is in a comatose state".

The market momentum for CHRP was based around the presumption that at least in the short run, the majority of CHRP machines would run the MacOS, until other operating systems caught on with the new hardware. Now Apple has cancelled cloning and purchased their nearest rival, CHRP is in a comatose state.

Imagine the damage control Amiga Inc. would be going through now if they'd made such an arbitrary decision without letting qualified people look at the situation first!

The Amiga's something special, if it wasn't we wouldn't all still be here. If it is to be taken to the next level of success, it's going to need level heads and coordinated decisions behind it.

These things take time, so for now, we all need to be patient and let Schindler get his house in order. (You thought I was going to say "list", didn't you?)

■ **Jason Compton is US Correspondent for CU Amiga.**

Amiga – the new Apple?



Apple, who have seen a drastic cut in their market share over recent years, recently saw the departure of Gil Amelio, a business man not a visionary.

He was replaced by Steve Jobs, considered more of a visionary than a business man. This would have been a bit like Jay Miner taking over from Mehdi Ali just before Commodore went so spectacularly down the tubes. The Apple advocates are all in heaven at the concept that Steve Jobs, the original Mr Macintosh, will be back behind the helm steering Apple back from the brink that the evil Mr Amelio was leading it toward.

The more practically minded out there have been raising a few eyebrows at Jobs' activities since taking over the reigns, albeit temporarily. So far he has signed a deal with Bill Gates, a figure of hate for Apple users even more than for Amiga users, and secondly he has told all the Mac clone manufacturers that the game is over and that they will have to shut up shop.

Motorola, who were producing Mac clones, are not happy campers and may be less willing to help Apple in future developments of the PPC chip. This has been jumped upon by the pro DEC Alpha camp, who say that now the Amiga must go Alpha rather than PPC, but the news that Intel are buying out the Alpha while Motorola will continue with the PPC has put a crimp in that theory.

Apple's claim is that they were losing an enormous amount of money due to the clone manufacturers, and that developing the hardware and software was not sufficient enough, and they had to be selling the hardware too. They say that they were subsidising every clone sold to the tune of $200.

"Motorola, who were producing Mac clones, are not happy campers and may be less willing to help Apple in future developments of the PPC chip."

It seems to me that Apple have made a rather large error. I can't believe that this $200 subsidy is anything other than a result of the way that Apple refuse to use anything they haven't developed themselves. Gateway on the other hand have large resources tied in with their PC developments.

By using a healthy mixture of off the shelf components and Amiga specific developments, they can specify a hardware platform which requires a lot less system specific development. What's more, if they are really sharp, they can make the clone market work for them.

With companies like Index and Micronik working on very interesting developments of their own, licensing could easily become a 2 way process. The fallout from the Apple business is that CHRP is no longer a viable alternative for a future Amiga.

The Common Hardware Reference Platform is no longer going to be available to third party developers, another thing Motorola are not happy about.

The basic hardware is very straightforward though. Motorola have a lot of expertise in the construction of PPC hardware, they have PPC to PCI bridge chips, and they have solid i/o implementations.

If Gateway/Amiga Inc. were to jump in with the right offer, Motorola could be encouraged to think that there are serious alternatives to the Macintosh when it comes to use of PPC chips in desktop computers. Who knows, Motorola might not have to close down its clone computer making business after all.

■ **Andrew Korn is Staff Writer for CU Amiga.**

Console yourselves?!

Why would anyone want to buy a new Amiga? It's possible the end of the console boom is nigh. It could be the last Christmas for the little grey and black boxes sitting under the TV, and next year they could be in the cupboard with the Atari VCS, waiting for car boot sales.

Remember these things go in cycles, and after shelling out for Playstation and a Nintendo64 a lot of people won't want any new hardware for a long, long time. It would help if manufacturers would make their hardware systems compatible with the last generation games, but they don't.

Although a Nintendo64 could run SuperNES games if it wanted to, it won't. You have you buy all the games again – because at fifty to seventy quid a throw, that's where the profit is. The current state of the PC doesn't help consoles either – with 3D graphics cards starting to make their presence felt, there's a real chance the PC will become the definitive gaming console. PCs are actually getting easier to use, and with the incredible power of a Pentium, there are few games which would be impossible to port given enough time and money.

There's a chance that Windows will grow so big and clever that it will trip over itself, but in general Windows98 will be easier to use and powerful enough to convert almost all Workbench fanatics. At the very least, the excellent development tools should lure away the programmers. So where does this leave the Amiga? Give me thirty seconds and I'll tell you. The only possible future of the Amiga is (drum roll as he opens golded envelope) as a dedicated Internet terminal. Think about this for a while, and then tell me that you wouldn't be interested in buying one. And don't think you have heard it before: you haven't – this is new.

The new Amiga hardware is a small box, connected to the family TV or a dedicated monitor. The keyboard is infrared. In fact, update the CDTV a bit, and that's all that needs doing to the cosmetics. There are some big differences inside the case though. Give it a fast processor, chunky graphics, built-in hardware for capturing, compressing and playing video and make it a dedicated Internet-friendly box with idiot proof (i.e. invisible to most users) TCP/IP and Web and Mail applications. Here's a hard bit, but it has to be done because we need Internet Explorer or Netscape: Forget AmigaDOS and the Workbench (sniff) and make it run WindowsCE, the new compact operating system from Microsoft.

"This could be the last Christmas for the little grey and black boxes sitting under the TV, and next year they could be in the cupboard with the Atari VCS"

WindowsCE is quick, 32 bit, fully multitasking and can turn on and off instantly. It also speaks fluent Internet, is available for a range of processors and comes with a standard Web browser.

Now, and here's the clever part, build in one of those new format modems which the power generating companies are promising will give us 30 times the speed of our existing modems next year. The result is a fast, easy to use video phone and Internet terminal which would make UK the most technologically advanced country in the world.

Mail, shopping, dial up porn (most important to launch any new media), software, games, DVD CD-ROM... It's a dream come true for home computer users. And that's my recipe for the future of the Amiga.

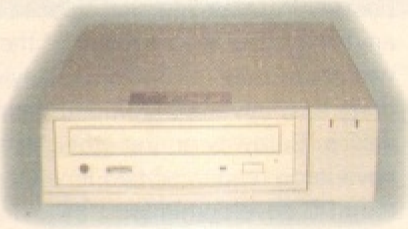
■ **John Kennedy is a Technical Consultant for CU Amiga.**

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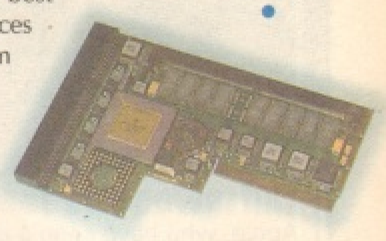
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